WORK MANAGEMENT MANUAL - BLAST AND FAINT GENERAL

BLAST AND PAINT WORK

Performed in

BLAST AND FAIRT BUILDING

Presered for:

SWANE Panel SP-8 MARAD Task E8-8-11 Under the direction of H.B. Washard & Co.

ริทยคลายดี พีซะ

Industrial Engineering Deri-Peterson Builders Inc. Sturgeon Bas. Wisc. August, 1983

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WORK MANAGEMENT MANUAL

BLAST/PAINT GENERAL

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The score of this manual will encompass all blast and walnt activities retrormed in the blast and pains books.

While the data collected for this manual was procured from the ARS's, special attention was given to its development so as to the applicability for painting any ship.

1.1 PLANT AREA, DEPARTMENT, WORK CENTER, COST CENTER

- A. Flant Area Feterson Builders Inc. Storseon Bas. Wisc.
- Deventuenta Blast and Paint Dept.
- C. Work Senter 1. Blast Booth 2. Paint Booth

1.2 FRODUCTS AND COMPONENTS

- 4. Products
 - All sub-assemblies and miscellaneous small parts painted before installation
- 1.3 MATERIALS Abrasive Grit
 - 1. Steel Grit a. G-50

Faint

1. Epons
a. 5000 Series
b. 4032 Shop Primer

The second secon

- .BS .4 OPERATIONS

 - Strip Blast
 Full Blast
 Painting w/pressure pot
 Painting w/cup

SECTION 2 STANDARD FRACTICES AND FOLICIES

2.1 CARE OF EQUIPMENT AND WROK AREA

The operator assigned to the particular work station is responsible for the lubrication, minor maintenance, and cleanliness of the equipment at the work station and for the cleanliness of the area in and around the work station.

.C.2 QUALITY CONTROL AND INSPECTION

Inspection of work in process and final inspections are conducted in accordance with FBI Standard Procedure Ro. 8.

- 1. General Requirements:
- (a) The Chief Engineer provides contract data, specifications, drawings, lists of material and other services and technical data required for procurement, production testing and inspection of materials and equipment.
- (b) The Purchasing Merit procures material, equipment, subcontract services and vendor technical data to support Production and inspection shedules.
- (c) The Production Control Manager schedules production, inspection, testong and trials and prepares the work order packets which contain production instructions.
- (d) The Quality Assurance Manager Provides specific inspection, testing, and trial data as required.

2. Quality Planning:

(a) The Chief Engineer reviews contract data, specifications, drawings and vendor technical data to determine Quality requirements, The requirements for the purchase of materials are provided to the Purchasing Agent on the List of Material. The requirements for fabrication and construction are provided to the Production Control Manager on the List of Materials, Special requirements for inspection and testing are provided to the Quality Assur-

STAMBARS PRACTICES AND POLICIES

ance Manager for use in preparing inspection and test procedures.

- (b) The Production Control Manager assembles the work order packets which include the List of Materials, drawings, inspection instructions, test procedures and other pertinent information for distribution to Production Superintendents. The Production Control Manager also prepares and coordinates the production schedule.
- (c) The Quality Assurance Manager will review contract data, specifications, drawings and other technical data for quality requirements and prepares inspection instructions and test procedures which then are included in the work order packet. Special tests for performance by the manufacturer or vendor also are determined. These requirements are coordinated with PBI Engineering, FBI Furchasing and the manufacturer or vendor, and will be included on the purchase requisition to become part of the purchase order.

3. General Procedures:

- (a) The chief Engineer Provides to the Quality Assurancee Manager the contract data, specifications, drawins, and other technical data required to conduct in-process inspections and tests. The Chief Engineer is responsible for ersuring that all data provided is current, complete and accurate.
- (b) The Furchesins Asent produces certification, or test data, as required, from vendors. This information is acquired to verify that material used in production complies with contract specifications and drawings.
- (c) The Production Control Manager prepares the work order packets, the testing and the production schedules. The work order packets are distributed to the appropriate Production Superintendent in accordance with the production schedule.
- (d) The Quality Assurance Manager prepares an index of tests, identified to each appropriate work order. He also prepares any special inspection instructions which has be required but which are not included in other data provided with the work order.

4. In-Process Inspection:

Early in each contract, Quality Assurance personnel review the specifications, drawings, and other technical data and record in-

STANDARD FRACTICES AND POLICIES

spection and test characteristics. These characteristics are bruken down by work order and are used by the Guality Assurance Inspector for check-off lists when conducting the in-process inspections.

- (a) The Quality Assurance Manager is responsible for assuring that production elements meet design specifications. He has authority to reject any item which does not meet specifications and to halt any production activity which does not conform to established Quality Standards.
- (b) The production Supervisor responsible for a work order is also responsible for conduct day-to-day inspection of work in progress, He reports any discrepancies or problems to the appropriate Production Superintendent. Discrepancies found in drawings are reported to the Chief Ensineer on a Field Ensineerins Change Request so that the drawing may be updated to reflect actual configuration.

5

When specific inspections or tests are requied prior to completion of a work order, they are noted on the work order, before the work is moved or the work order signed off, a final inspection is made.

- (a) The Quality Assurance Inspector witnesses final inspections and tests. When a Government Representative, Owner Representative or Regulators Agent wishes to witness inspection, the Quality Assurance inspector makes the makes the necessary arrangements.
- (b) The Quality Assurance Inspector annotates inspection results on the work order or Inspection Report, as appropriate, $^{\rm If}$ discrepencies are found during final inspection, they are recorded on the Inspection Report and copies of the report are distributed to responsible and Interested persons fur corrective action, When discrepencies are corrected, the work is reinspected and results are recorded on the Inspection Report.
- (c) The Quality Assurance Inspector signs the inspection Report and attaches it to the work order to signify satisfactory completion.

6. Test Requirements:

Contract data, specifications, drawings, and Regulatory Agency rules contain the specific test requirements for the shipboard test program.

STANDARD PRACTICES AND POLICIES

- (a) The Quality Assurance Manager is responsible for the development of test documentation and for the implementation of the Ship Test Program. Early in a contract, Quality Assurance personnel review test requirements and prepare a comprehensive Test Index. Subsequently, the Test Index and the Production Schedule are combined to produce a Test Schedule. Prior to the performance of any tests, detailed test procedures are prepared and submitted to the Government, Owner, or Resulatory Agent for approval. Required tests are then identified on the work orders.
- (b) The Quality Assurance Inspector witnesses all tests, when a Government Representative, Owner Representative, or Regulatory Agent wishes to witness the test, the Quality Assurance Inspector makes the necessary arrangements,
- (c) The Quality Assurance Inspector completes the detailed test procedure. If discrepancies are found during testing, they are annotated on the test report. Retests are performed after discrepancies have been corrected. When tests are completed and accepted, the test reports are turned in to Quality Assurance Managers. Completed test reports for each ship are assembled in booklet form and are distributed in accordance with contract requirements.

7. Non-Conforming Material:

- (a) Items having discrepancies in material or workmanship that do not affect the end use of the item or system are corrected immediately, prior to further work on the item or system. This includes such faults as pick-up welding, weld repair resulting from non-destructive tests, improper fit-up, leaks found during piping or compartment testing, paint thickness, etc.
- (b) items having discrepancies in material or workmanship that can not be corrected without specific customer approval are rejected. The Quality Assurance Inspector marks rejected material with a red tag. A Quality Assurance Rejection Notice is PrePared and distributed. Rejected material is removed from the production area to a designated holding area, Rejected material shall not be moved from the holding area until approved disposition has been approved and authorized. Corrective action, including repair, is performed only with approval of the Government, Owner, or Regulatory Agent as appropriate.
- (c) Nonconforming incidents of a repetitive nature are investigated to determine the cause and to initate appropriate preventative measures.

STANDARD PRACTICES AND FOLICIES

3. Quality Assurance:

The Quality Assurance Manager conducts periodic audits of in-process inspection and testing methods to ensure that inspection instructions and test procedures meet the requirements of the contracts specifications.

- (a) Inspection and test reports are reviewed for completeness and for accuracy.
- (b) Reports on the Quality Assurance System, with recommendations for improvement, are presented to Management periodically.
- (c) Communications are maintained with Government Representatives, Gwners, and Regulators Asents, and Dialogues are encouraged.

2.3 MATERIAL SERVICE

- 1. Receiving, storing, and handling material is under the cosnizance of the Facilities Superintendent,
- (a) The Paint Warehouse Man located at the Blast and Paint Shop is responsible for inspection, indentification, storage, handling and issuing of raw materials.
- Material is transferred from storage to production when requested on a FBI Material Requisition form.
- (a) The Material Requisition identifies the material by the description and quantity shown on the List of Materials and by the contract or Job number.
- (b) Material designated for a specific contract can only be issued for that contract.
- (c) A copy of the Requisition is sent to Material Control to adjust the inventory, and in some cases, to establish the Customer billing price.
- (d) A copy of the Material Requisition is retained by the appropriate warehouse supervisor.

STANDARD PRACTICES AND POLICIES

(e) A copy of the Material Requisition is returned to the individual requisitioner.

2.4 SUPPLY AND MAINTENANCE OF TOOLS

Employees are expected to provide and maintain specified personal tools. (Each department has a personal tool list suited for the employees of that department.) The company furnishes other necessary tools on a chip-for-tool basis. Company-owned tools are maintained by tool room personnel.

2.5 WORK ASSIGNMENTS

- 1. Work instructions are prepared by the production Manger bssed on information furnished by the Engineering Department, Purchasing Department, and Quality Assurance Department. Work instructions are recorded on a Production Work Order.
- 2. Work orders are made up for each item of work on the Work Order List that requires production actions. The work order is issued approximately two weeks prior to the scheduled start date for production of each item.
- 3. Work orders are issued to the appropriate foreman or supervisor via his superintendent. The foreman or supervisor is responsible for reviewing the work order, including the drawings, bill of material and other production and quality control instructions provided with the work order. The foreman or supervisor is responsible for requisitioning necessary material from stock or storagse.
- 4. The Production Manager monitors work order progress on a continuing basis. Periodic meetings are held to resolve trouble areas. Inspection of work in-process and final inspections are conducted in accordance with PBI Standard Procedure No. a.
- 5. Repair or materialWhich has been found to be non-coforming and which is approved for repair is authorized by Rework and Repair Order. Copies of all Work Orders and Rework and Repair Orders are kept in the Production Manager's files.

STANDARD PRACTICES AND POLICIES

6. Completed work orders, including marked up drawings, bills of material, comments and signatures are returned to the Production Manager via the appropriate Superintendent. The Production Manager provides Engineering with the marked up drawings and list of materials. Completed work orders are kept in the Production Manager's file for further reference.

2,6 TIME AND PRODUCTION REPORTING

Each Leadman is responsible for reporting to his foreman on a daily basis the work started and/or completed. The foreman is responsible for submitting a daily work card for each Leadman and Firefitter. On the daily work card is the employee's name, date, clock number, hull number, Job number, department number, number of hours worked on each Job, work description, and the foreman's signature. The cards are returned to the Timekeeping Department at the end of each day.

STANDARD FRACTICES AND POLICIES

2.8 SAFETY REGULATIONS

PBI, reslizing the importance of the safety, health, and welfare of its employees, consistently strives to:

- (a) Maintain safe and healthful working conditions.
- (b) Ensure consistant adherence to poper operating practices and procedures designed to prevent injury and illness.
- (c) Encourages conscientious observance of federal, state and company safety regulations.
- (d) An Employee's Safety Manual was given to each employee in May, 1981, and will be handed to each new employee at the time of hiring. This manual has been updated in May to the latest guidelines and rules affecting the safety of the employees at Peterson Builders Inc. Panagement and the employees have a strong commitment to maintain PBI as a safe place to work.

2.9 SUPERVISORY RESPONSIBILITIES

1. Supervisory Responsibilities:

- (a) The foreman supervises all Leadman, Painters and Bandblasters. He is responsible for implementing the work orders through the Leadman and for seeing that the work orders are completed on schedule. He is also responsible for requisitioning necessary material from stock or storage.
- (b) The Leadman supervises the Painters and Sandblasters on the job, He is responsible for ensuring that the Painters and Sandblasters have the necessary tools and materials to complete the Job. He is responsible to the foreman for the production and conduct of the painters and Sandblasters assigned to him. He answers on the job questions when the foreman is not present, and performs some on-the-job duties.

STANDARD PRACTICED AND POLICIES

- Levels of Direct Management:
 - (a) Faint and Blast Superintendent
 (b) Department Supervisor
 (c) Foreman
 (d) Craft Leadman
- 3. Area of Responsibility
 - (a) Blast Booth (b) Paint Booth
- 4. Craft Worker Classification:

 - (a) Painter (b) Blaster

SECTION 3 FACILITIES AND EQUIPMENT

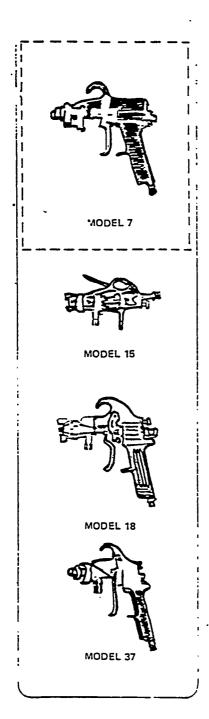
- 3.1 PRODUCTION EQUIPMENT AND SPECIFICATIONS
- 3.2 AUXILIARY EQUIPMENT
- 3.3 MATERIALS HANDLING EQUIPMENT

FACILITIES & EQUIPMENT

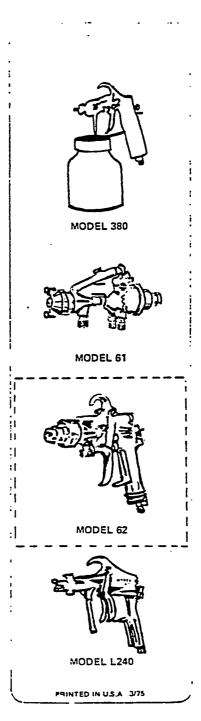
PAINTING

PRESSURE FEED GUN MODEL 62

CUP TYPE GUN MODEL 7



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REFER !	
MBZZLE MO	ORIFICE SIZE
D923**	026
ja*	043
11.	.082*
₩.	.643
-220**	.C20
:33C**	.030
1240	.030 .040 .060
*.960**	
33	046
338	046
330	.052 059
35 36	. 059 .070
37VTt	.070
38	086
38 VT †	099
41VT†	120
4.	.187
45*	. 250
46*	.312
47*	.375
49*	.500
59A*	.171
598	.218
59C*	.281
61	.022
62	022
63	.028
63A	.040
638 . 63C	.046 .052
53CVT1	.052
64VT+	054
65	059
66	070
67	.086
67VT+	086
68	.110
68VT+	110
69€	125
76	040
77	052
78	070
81*	040
83° 86	059
420**	070
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445**	.045
452**	.052
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FACILITIES & EQUIPMENT

PAINTING

Pressure feed tanks

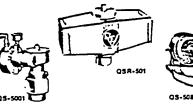
TYPE QN PRESSURE FEED TANK (2 gallon capacity)

Economical tank for use with no more than 50 pounds pressure. Welded steel tank construction. Tight fitting, gasketed lid with four forged steel clamps. Air inlet and outlet %" NPS (M). Fluid outlet %" NPS (M). Ship Wt. 14 lbs.—Export: 34 lbs.; 24 cu. ft. (Non O.S.H.A. Compliance)

QN-5003 Pressure Feed Tank, complete with pressure regulator & gauge.



Accessories











Hand Agitators—Simple device for mixing materials in tank. Can be ordered assembled in tank or separately. Give tank type and senal number when ordering agitators only.

QS-5001 Air Motor Drive—Powerful, smooth running. Mounts on hand agitator shall of any size tank. Low air consumption, approx 6 ctm at 50 rpm. Includes throttling valve, littings and hose for connecting to air supply on tank lid.

QS-5011 Air Motor Drive—Same as QS-5001, except with heavy duty air motor.

QSR-501 Reciprocating Air Motor Drive—Low air consumption motor mounts easily on tanks equipped for material agitation. Slow back and forth motion ensures proper agitation, includes mounting clamp and air supply nose with shutoff valve and connecting "T".

QS-508 Electric Motor Drive— - horsepower gear head motor and adapter housing mount on hand aditator snatt of any size tank except 2 gallon. Drives agriator at 56 rpm. Available with either explosion proof or totally enclosed motors.

Insert Containers—Metal pails that are used inside pressure feed tanks. Protect tank and material Made of different metals to meet the requirements of a wide range of fluids.

VA-526 Stainless Steel Fluid Valve—for use on catalyst tanks containing materials that are difficult to hold, such as M.E.K. peroxide. Ball type valve construction; stainless steel, hard chrome plated; teflon seals; stainless steel hipple and coupling.

71126-807 Disposable Liners—for 2 gallon QM or QN tanks.
Tough, leak-proof construction, Made of polyethylene. Available only in packages of live.

P-QM-4092 Air Regulation Kit-Adapts to tanks equipped with single regulator to provide independent pressure control of atomization air and fluid pressures.

Material Strainers—Attaches between tank outlet and fluid nose. Material forced through fine mesh screen, Easily removed and cleaned, \mathcal{H}^{\bullet} NPS (M) \mathbf{x} \mathcal{H}^{\bullet} NPS (F).

P-VS-506 100 Mesh; P-VS-518 60 Mesh; P-VS-518 60 Mesh.

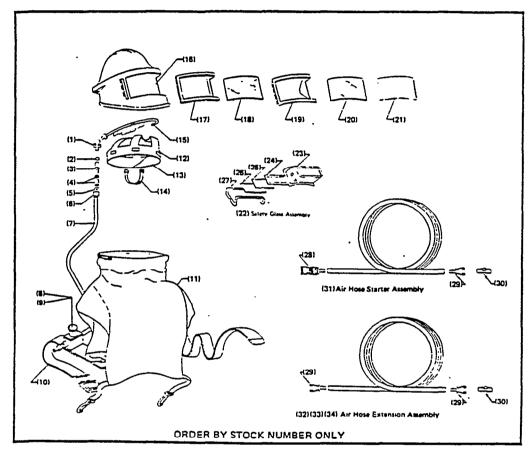
KK-6109 Oil & Moisture Separator Mounting Kit—includes adapters, air nose, and pracket for mounting separator to any 5, 10, or t5-gailon tank. Order HRE-501 separator additionally

FACILITIES & EQUIPMENT

BLASTING

PROTECTIVE EQUIPMENT

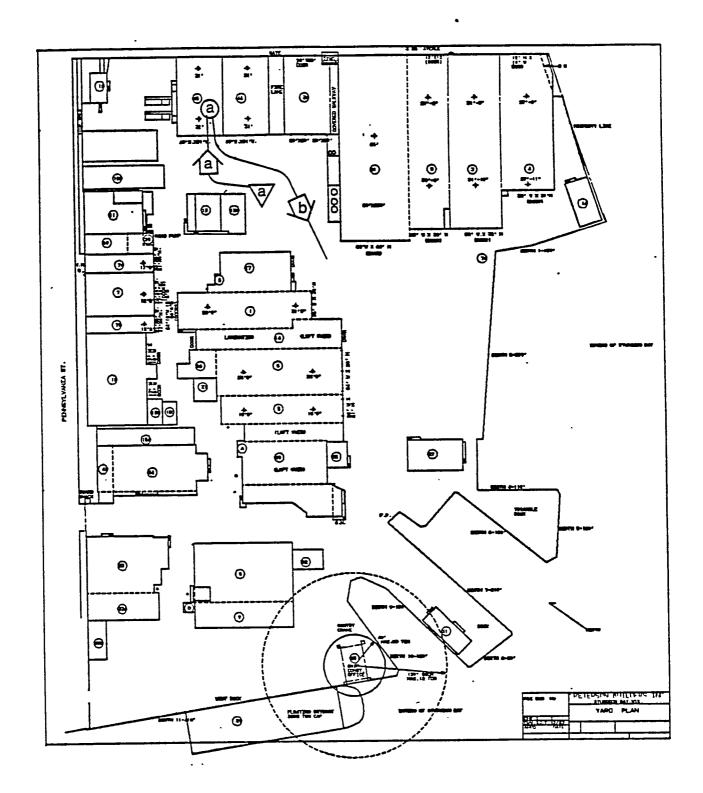
REPLACEMENT PARTS



ITEM	DESCRIPTION	STOCK	NO.	ITEM	DESCRIPTION	STOCK NO.
(-1	Heimet assembly (Ref. No. 46-017	41PCE	0989	(19)	Window trame with pin	41PCE 2992
(1)		41PCE	0990		*Outer acetate lens, 5" x 10%"	
(2)	Outer wesher	41PCE	1029		f 040" thick)	41PCE CODO
(2)	White inlet fitting with screen and filter	41PCE	0993	(21)	*Mylar lens	
[4]	Polyurethane filter with screen	41PCE	1021	(22)	Safety grass assembly toptional)	41905 1010
(5)	Adaptor wather	41PCE	1009	(23)	Safety glass window frame	
(6)	Thresped hose connector	41PCE	1030	(24)	Safety glass lens gasket	
(7)	Air hase with fittings	41PCE	1007	(25)	Laminated safety glass	
(8)	Selt/brask valve complete	-		(26)	Giass cover lens	41PCE 1014
	(Ref. No. 46-4HP)1	41PCE	1004	(27)	Glass spring clip	41PCE 1015
191	Break valve only	41PCE	1005	(28)	Female quick disconnect fitting	41PCE 1060
(10)	Beit only	41PCE	1006	(29)	Push-Lok nose eng. 3.8"	
(11)	Outer cape, green			(30)	Adaptor, 3'8" h.t. to 3/6" p.t., brass	
	IRef. No 56-3-G)1	41PCE	1003	(31)	Starter air nose, 3 8" a 25' coupled	
(12)	Adjustable headcand with sweatcand	41PCE	0994		(Ref No V-10-25+1	41PCF 1016
(13)	Chinstrao	41PCE	0996	(32)	Air nose extension 3 8" x 25 coupled	
(14)	Sweatband , , , ,			(33)	Air nose extension, 3/8" x 50" coupled	
(15)	Air distribution tube with fitting			(34)	Air hose extension, 3/8" x 100" coupled	
(16)	Window latch assembly Inot shown?					
(17)	Molded rupper window dasket					
(18)	*Inner acetate tens, 4-5/8" x 8-11*16"			† Ref	erance numbers for MESA/NIOSH approval No. TO	190.85
	1.040" thicks	41PCE	1037		ammend space part	

SECTION 4 LAYOUTS AND MATERIAL FLOW

- 4.1 WORK AREAS
- 4.2 DEFARTMENT OR COST CENTER LAYOUTS
- 4.3 MATERIAL FLOW



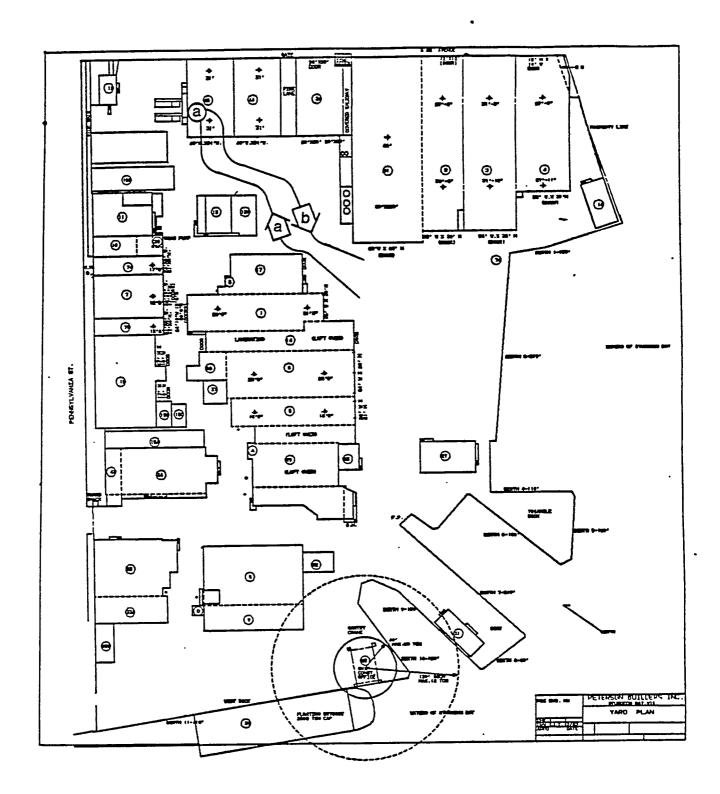
FLOW PROCESS CHART Code: _____

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								м. =
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CHART ENDS								
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	STORAGE OF SUB-ASSEMBLIES AND MISCELLANEOUS PARTS							<u> </u>
	TRANSPORT TO BLAST BOOTH BLAST SUB-ASSEMBLIES AND MISC	-						\ · -
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H. B. MAYNARD AND COMPANY

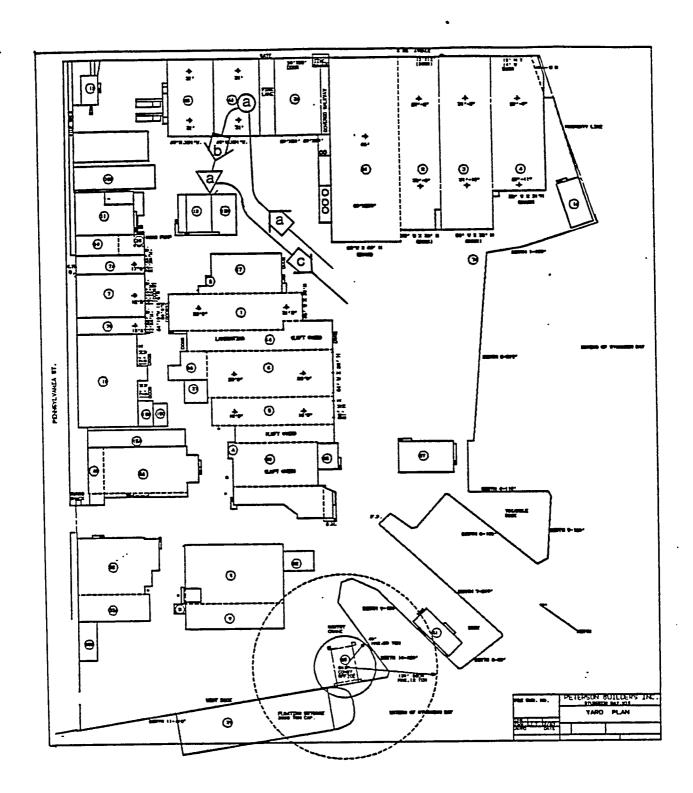
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	FLOW PROCES					đe:		
SUBJECT	SUB-ASSEMBLIES			D/	LTE			
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CHART BEGINS	SHOPS OR DEPARTMENT							
CHART ENDS	ASSEMBLY							
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	BLAST ASSEMBLIES						·	<u> </u>
	TRANSPORT SUB-ASSEMBLIES TO ASSEMBLY							
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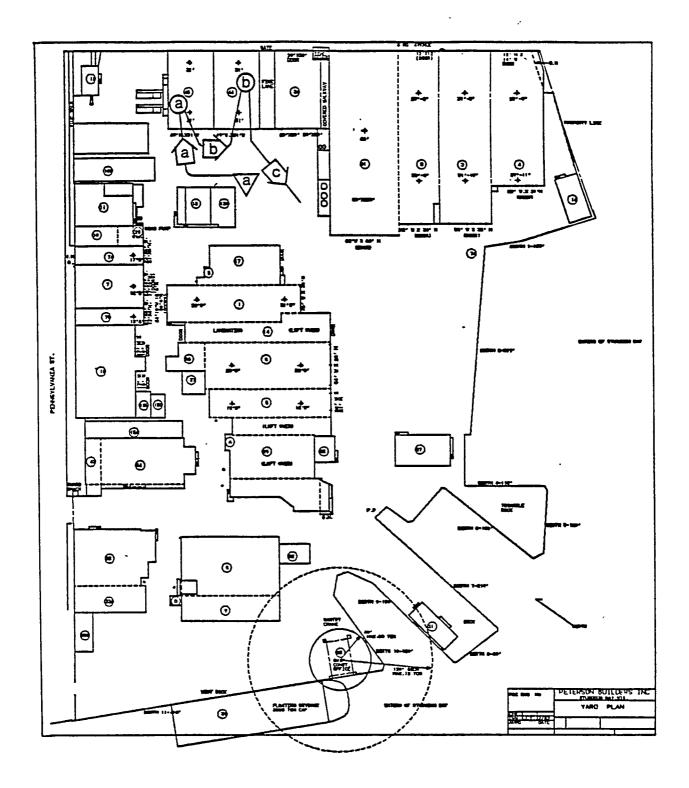
· Page 21



FLOW PROCESS CHART C: de: _____ SUBJECT SUB-ASSEMBLIES AND/OR MISCELLANEOUS PARTS DATE CHART BEGINS SHOPS OR DEPARTMENTS . **ASSEMBLY** CHART ENDS _ DISTANCE MOVED IN FEET UMIT OPER TIME IN HOURS UNIT TEAMS TIME IN HOUSS DESCRIPTION REF. -SYMBOLS MOU'98 TRANSPORT SUB-ASSEMBLIES AND MISC. PARTS TO PAINT BOOTH PAINT SUB-ASSEMBLIES AND MISC PARTS TRANSPORT SUB-ASSEMBLIES AND MISC TO TEMPORARY STORAGE TEMPORARY STORAGE OF SUB-ASSEMBLIES TRANSPORT SUB-ASSEMBLIES AND/OR MISC PARTS TO ASSEMBLY

H. B MAYNARD AND COMPANY

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FLOW PROCESS CHART Code: _______ SUBJECT SUB-ASSEMBLIES ____ DATE ____ CHART BEGINS _____STORAGE ____ CHART ENDS __STORAGE AND/OR ASSEMBLY UNIT OPER TIME IN MOURS UNIT UNIT TOAMS IMEPECT TIME IN TIME IN MOURS MOURS DELAT DISTANCE MOVED IN FEET 7:ME 1M DESCRIPTION REF. SYMBOLS MOURE STORAGE OF SUB-ASSEMBLIES TRANSPORT SUB-ASSEMBLIES TO BLAST BOOTH BLAST SUB-ASSEMBLIES TRANSPORT SUB-ASSEMBLIES TO PAINT BOOTH PAINT SUB-ASSEMBLIES TRANSPORT SUB-ASSEMBLIES TO STORAGE OR ASSEMBLY

H. B MAYNARD AND COMPANY

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SECTION 5 PROCESS DATA

5.1 DERIVATION OF PROCESS TIMES

Process Time For Strip Blasting
Single Chamber Blast Machine - Clemco Model SC-3637

The process times shown for both strip and full sandblasting are results of actual field observations made on various dates and times in the Sandblasting Building at Peterson Builders, Inc.

Sauare Feet/Minute

Observation	₩о.	1	11.3			
•	•	2	15.25			
•	•	3	25.28			
. •	•	4	8.0			
•	•	5	4.1			
•	•	6	25.55	,		
•		7	6.5			
• .	•	8	3.15			
•	•	9	21.1			
•	•	10	27.83			
	•	11	5.92			
		•	153.98	(rounded	to	154

154 ---- = 14 square feet/minute average 11

PROCESS DATA

Process Times For Full Blastins Single Chamber Blast Machine - Clemco Model SC-3676

The process times shown for both strip blasting and full blasting are results of actual field observations made on various dates and times in the Sandblasting Building at Peterson Builders, Inc.

Sauare Feet/Minute

Observation	No.	1	10.9
•	•	2	10.4
•	•	3	3.77
•		4	7.85
•	•	5	10.0
•	•	6	2.03
•	•	7	3,22
•	•	8 -	8.5
•	•	9	3.7
•	•	10	13.8
	•	11	11.6
•	•	12	5.9
•	r	13	3.33
			95.00

75 ---- = 7.31 square feet/minute average 13

PROCESS DATA

Process Times For Painting Epoxy 4032 Shop Primer Applied At 1 Mil. .

The Process times shown are for conventional air spraying with pressure pot. The results are from actual field observations made on various dates and times in the Paint Building at Peterson Builders, Inc.

Square Feet/Minute

Observation	No.	1	50.4
		2	46.5
		3	51.4
•	•	4	46.3
•	•	5	44.6
•	•	6	42.1
•	•	7	42.8
•	•	8	45.2
			371.8

371.8
----- = 46.5 square feet/minute average

SECTION 5

DERIVATION OF PROCESS TIMES

PAINTING CAPACITY PER SHIFT (Small Parts painting)

observations were taken of the painters using conventional air spray methods, from which it was determined that a painter was able to spray 11,000 square feet per shift covering a flat surface. However for small parts painting, where the pieces are placed on $4' \times 8'$ plywood sheets, only 6,600 square feet could be attained.

The paint used in the painting booth has 45% solids, is an epoxy type, and is layed down at 1 to 1.5 dry mil thickness which would cover about 600 square feet per gallon.

The painter can spray 10 gallons of paint per shift. The spray paint pots hold about 2½ gallons of which about 2 gallons are used per mix. This will amount to five mixes per shift. It takes about .16 of an hour to fill the pots and mix the paint. At .16 hours per mix times the five mixes per shift amount to .80 of an hour. Since there isn't any way to pick up this time in the set up because of varying conditions such as number of pieces on the job, size of the pieces, the number of jobs to be run per shift, the time will be pro-rated into the piece time, thus allowing it as needed.

THE PAINTING OF SMALL PARTS

The process for painting small parts involves the loading of these parts on $4' \times 8'$ plywood sheets that are supported by wooden horses. While it is possible for the whole booth area to be tied up with this type of set up, the basic work pattern the painter goes through is repeated for each $4' \times 8'$ sheet set up. This pattern has been selected to be the basis of the method used to establish labor standards. The procedure for loading pieces involves:

- a) place piece on sheet
- b) paint one side
- c) flop piece
- d) paint second side
- e) remove piece

The labor standard is based on part size and weight. Vertical heights of pieces over 8" is an add on to the base time. Part size determines the number of pieces that can be loaded on a $4' \times 8'$ sheet which determines the painting pattern for the number of passes the painter must take to cover all edges and top area.

Large and free standing are handled with a separate standard time.

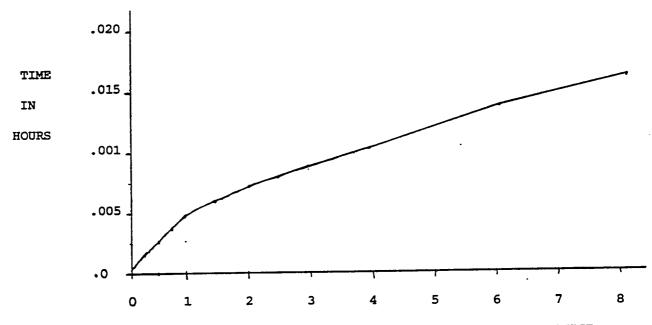
APPLYING STANDARD TIME TO SMALL JOBS

The painting of very small parts may involve such a small amount of time that it may go more than four decimal places to the right of the decimal point. The labor standards on these parts should be figured at 100 pieces instead of one. Example: .00024 hrs/piece would be .024/c (at 100 pieces).

PROCESS TIMES

FOR PAINTING OF SMALL PARTS

*SQ FT	HRS
.25	.00160
.50	.00268
.75	.00376
1.0	.00484
1.5	.00646
. 2.0	.00700
2.5	.00781
3.0	.00862
4.0	.01024
6.0	.01456
8.0	.01672



*FOR ANY PIECE OVER 8" HIGH YOU MUST ADD THE EXTRA SQUARE FOOTAGE PER PIECE.

NO. OF SQ. FT. _____ X .001 HRS/SQ. FT. = ____ HRS.

STANDARD TIME CALCULATION

SET-UP TIME FOR BLASTING

										HOURS
SET-UP	AND	TEAR	DOWN	OF	OPERATOR					.0833
						ALLOW	IANCE	1	134	.0125
						TIME	STAN	ND	DARD	.0958
CLEANU	JP					LOC.	NO.	7	25	.6924
						ALLOV	VANCE	3	15%	.1039
						TIME	STAN	ND	DARD	.7963
PARTIAI	L CLE	AN UI	2			LOC.	NO.	7	738	.0868
						ALLOV	VANCE	C	15%	.013
						TIME	STAN	ND	ARD	.0998

SECTION 7. STANDARD TIME CALCULATION STRIP BLASTING

FT ₂	0-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
MANUAL TIME	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10
ALLOWANCE *15%	.0115	.0230	.0345	.046	.0575 ·	.0690	.080	.092	.1035	.115
TOTAL	.0215	.0430	.0645	.0860	.1075	.1290	.1500	.1720	.1935	2150
BLOW-OFF PROCESS TIME	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10
BLASTING PROCESS TIME	.119	.238	.357	.476	.595	.714	.833	.952	1.071	1.19
BLASTING P.T. **ALLOWANCE 5%	.006	.012	.018	.024	.030	.036	.042	.048	.054	.06
TOTAL P.T.	.135	.27	.405	.540	.675	.81	.945	1.08	1.215	1.35
ALLOWANCE *15%	.02	.04	.061	.081	.101	.121	.142	.162	.182	.202
TIME STANDARD IN HOURS	.1765	.353	.530	.707	.883	1.06	1.24	1.41	1.59	1.767

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

**ALLOWANCES BASED ON OBSERVATIONS OF BLASTING OFF WELD SLAG (5% X BLASTING P.T.)

SECTION 7. STANDARD TIME CALCULATION
STRIP BLASTING

	1001	1101-	1201-	1301-	1401-	1501-	1601-	1701	1801-	1901-
FT ₂	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
MANUAL TIME	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20
ALLOWANCE *15%	.1265	.138	.1495	.161	.1725	.184	.1955	. 207	.2185	.23
TOTAL	.2365	. 2580	. 2795	.3010	.3225	.3440	.3655	.3870	. 4085	.4300
BLOW OFF PROCESS TIME	.11	.12	.13	.14	.15	.16	.17	.18	.19	. 20
BLASTING PROCESS TIME	1.309	1.428	1.547	1.666	1.785	1.904	2.023	2.142	2.261	2.38
BLASTING P.T. **ALLOWANCE 5%	.066	.072	.078	.084	.090	.096	.102	.108	.114	.120
TOTAL P.T.	1.485	1.62	1.755	1.89	2.025	2.16	2.295	2.43	2.565	2.70
ALLOWANCE *15%	.223	. 243	.263	.283	.304	.324	.344	. 364	. 385	.405
TIME STANDARD IN HOURS	1.94	2.12	2.30	2.47	2.65	2.83	3.00	3.18	3.36	3.53

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

^{**}ALLOWANCES BASED ON OBSERVATIONS OF BLASTING OFF WELD SLAG (5% X BLASTING P.T.)

SECTION 7. STANDARD TIME CALCULATION
FULL BLAST

FT ₂	0-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
MANUAL TIME	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10
ALLOWANCE *15%	.0115	.023	.0345	.046	.0575	.069	.0805	.092	.1035	.115
TOTAL	.0215	.0430	.0645	.086	.1075	.129	.150	.172	.1935	.216
BLOW-OFF PROCESS TIME	.01	.02	.03	.04	•05 ·	.06	.07	.08	.09	.10
BLASTING PROCESS TIME	.228	.456	.684	.912	1.14	1.368	1.596	1.824	2.052	2.28
BLASTING P.T. **ALLOWANCE 5%	.011	.023	.034	.046	.057	.068	.080	.091	.1026	.114
TOTAL P.T.	.249	.499	.748	.998	1.247	1.496	1.746	1.995	2.2446	2.494
ALLOWANCE *15%	.037	.075	.112	.15	.187	.225	.262	.299	.337	.374
TIME STANDARD IN HOURS	.308	.617	.925	1.24	1.54	1.85	2.16	2.47	2.78	3.09

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

^{**}ALLOWANCES BASED ON OBSERVATIONS OF BLASTING OFF WELD SLAG (5% X BLASTING P.T.)

SECTION 7. STANDARD TIME CALCULATION FULL BLAST

	1001-	1101-	1201-	1301-	1401-	1501-	1601-	1701	1801-	1901-
FT ₂	1100	1200	1300 .	1400	1500	1600	1700	1800	1900	2000
MANUAL TIME	.11	12	.13	.14	.15	.16	.17	.18	.19	.20
ALLOWANCE *15%	.1265	.138	.1495	.161	.1725	.184	.1955	.207	.2185	.23
TOTAL	.2365	,2580	. 2795	.3010	.3225	.3440	. 3655	.3870	.4085	.4300
BLOW OFF PROCESS TIME	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20
BLASTING PROCESS TIME	2.508	2.736	2.964	3.192	3.42	3.648	3.876	4.104	4.332	4.5600
BLASTING P.T. **ALLOWANCE 5%	.1254	.1368	.1482	.1596	.171	.1824	.1938	.2052	.2166	. 228
TOTAL P.T.	2.7434	2.993	3.2422	3.4480	3.741	3.9904	4.2398	4.4892	4.7386	4.988
ALLOWANCE 15%	.412	.449	.487	.518	.561	.600	.636	.675	.711	.748
TIME STANDARD IN HOURS	3.40	3.70	4.01	4.27	4.63	4.94	5.24	5.56	5.86	6.17

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

**ALLOWANCES BASED ON OBSERVATIONS OF BLASTING OFF WELD SLAG (5% X BLASTING P.T.)

STANDARD. TIME CALCULATION

SET-UP TINE FOR PAINTING

SET-UP AND TEAR DOWN OF OPERATOR	LOC. NO. 723 LOC. NO. 736	HOURS .0402 .0135 .0537
	ALLOWANCE 15%	.008
	TIME STANDARD	.0617
TRANSPORT PAINT	LOC. NO. 713 ALLOWANCE 15%	.0651
	TIME STANDARD	.0749
SET-UP AND TEAR DOWN PAINT EQUIP	LOC. NO. 718 LOC. NO. 719	.0168 .0427 .0426 .0403 .1882 .3306 .0496
		.3802

SECTION 7. STANDARD TIME CALCULATION

PAINTING USING A CONVENTIONAL AIR SPRAYER W/PRESSURE POT

EPOXY PRIMER (4032 SHOP PRIMER @ 1 MIL COVERAGE)

FT ₂	0-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000
MANUAL TIME	.0061	.0122	.0183	.0244	.0305	.0366	.0427	.0488	.0549	.0610
CLEANING PROCESS TIME	.015	.030	.045	.060	.075	.090	.105	.120	135	.150
PAINTING PROCESS TIME	.036	.072	.108	.144	.18	.216	.252	.288	.324	.360
TOTAL PROCESS TIME	.051	.102	.153	. 204	. 255	.306	.357	.408	.459	.510
ALLOWANCE *15%	.0086	.018	.026	.035	.043	.052	.060	.069	.077	.085
FLAT SURFACE TIME STANDARD IN HOURS	.066	.132	.198	.264	.329	.395	.460	.526	.591	.656
IRREGULAR SHAPE **ALLOWANCE 35%	.023	.047	.069	.092	.115	.138	.161	.184	.207	.230
IRREGULAR SHAPE TIME STANDARD IN HOURS	.089	.179	.267	.356	.444	.533	.621	.710	.798	.886

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

^{**}ALLOWANCES BASED ON OBSERVATIONS OF PAINTING IRREGULAR SHAPE COMPARED TO A FLAT SURFACE (35% X PAINTING P.T.)

SECTION 7. STANDARD TIME CALCULATION

PAINTING USING A CONVENTIONAL AIR SPRAYER W/PRESSURE POT

EPOXY PRIMER (4032 SHOP PRIMER @ 1 MIL COVERAGE)

	1001-	1101-	1201-	1301-	1401-	1501-	1601-	1701	1801-	1901-
FT ₂	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
MANUAL TIME	.0671	.0732	.0793	.0854	.0915	.0976	.1037	.1098	.1159	.122
CLEANING PROCESS TIME	.165	.180	.195	.210	.225	.240	.255	.270	. 285	.300
PAINTING PROCESS TIME	.396	.432	.468	.504	.540	.576	.612	.648	. 684	.720
TOTAL PROCESS TIME	.561	.612	.663	.714	.765	.816	. 867	.918	.969	1.02
ALLOWANCE *15%	.093	.101	.111	.120	.129	.137	.146	.154	.163	.171
FLAT SURFACE TIME STANDARD IN HOURS	.721	.787	.854	.920	.986	1.05	1.12	1.19	1.25	1.32
IRREGULAR SHAPE **ALLOWANCE 35%	.253	.275	.299	.322	. 245	.368	.391	.414	.437	.460
IRREGULAR SHAPE TI STANDARD IN HOURS	ME .974	1.07	1.16	1.24	1.33	1.42	1.51	1.60	1.69	1.78

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

^{**}ALLOWANCES BASED ON OBSERVATIONS OF PAINTING IRREGULAR SHAPE COMPARED TO A FLAT SURFACE (35% X PAINTING P.T.)

SECTION 7. STANDARD TIME CALCULATION PAINTING OF SMALL PARTS

SQ FT	.25	.5	.75	1	1.5	2	2.5	3	3.5	4	6	8**
MANUAL TIME	.36	.6	.84 ,	1.08	1.44	1.56	1.74	1.92	2.1	2.49	3.54	4.07
FILLING & MIXING	.11	. 22	.33	.44	.66	.88	1.1	1.32	1.54	1.76	2.64	3.52
LOAD & UNLOAD	14.4	14.4	14.4	14.4	14.4	17.28	17.28	17.28	17.28	17.28	21.6	21.6
TOTAL TIME	14.87	15.22	15.57	15.92	16.5	19.72	20.12	20.52	20.93	21.53	27.78	29.12
PROCESS TIME	5.76	9.65	12.15	17.4	23.26	25.2	28.12	31.03	33.91	36.86	52.42	60.2
*ALLOWANCE 15%	3.1	3.73	4.16	5.00	5.97	6.74	7.24	7.74	8.23	8.76	12.03	13.4
STANDARD TIME IN SECONDS	23.73	28.6	31.88	38.32	45.73	51.66	55.48	59.29	63.07	67.15	92.23	102.72
STANDARD TIME IN HOURS	.0066	.008	.0089	.0107	.0127	.0144	.0154	.0165	.0176	.0187	.0257	.0286
						·						

^{*}ALLOWANCES CONSIST OF 5% PERSONAL, 5% FATIGUE & 5% UNAVOIDABLE DELAY.

**FOR ANY PIECE LARGER THAN 8 SQ: FT. AND WEIGHING MORE THAN 50 LBS. ADD .006 HOURS TO ACCOUNT FOR A SECOND PERSON TO HELP LOAD AND UNLOAD THE PIECE.

STANDARD TIME CALCULATION

7.3 MANNING, CREW SIZE AND JOB CLASSES

1. WORKER'S DUTIES:

- (a) Blasters Prepare the surfaces of the ship and/or pieces to be assembled into the ship for coating by using a device which propels abrasive material at a high rate of speed onto the surface by either compressed air or other mechanical means to remove dirt, paint, mill scaler, etc. and provide an anchor pattern prior to surface roating by the Painters.
- (b) fainters apply paint, varnish, lacquer, etc. to surfaces of the ship and/or parts to be assembled into the structure of the ship, for protective purposes primarily with spray gun or brush. Work is repetitive in character, requiring little or no selection of color schemes or shading and matching of colors, with the finishes being standard in character or prepared by others.

SECTION 8 DATA SYNTHESIS AND BACK-UP

The manual methods were prorated according to the amount of actual blasting time that could be completed in a single 8 hour shift,

PRI based it's prorating on the average blasting time of 5 hours per 8 hour shift. The remaining 3 hours are a direct result of set-up time and material handling.

7	Frequency	691	No.	Locator	1
7		693			
7		071			
8		700			
0.33		728			
48		729			
3		730			
45		731			

DATA SYNTHESIS AND BACK-UP

The manual methods were prorated according to the amount of actual painting time that could be completed in a single 8 hour shift.

FBI based it's prorating on the average painting time of 4.6 hours per 8 hour shift. The remaining 3.4 hours are a direct result of set-up time and material handling.

Locator No.	691	Frequency	15
	692		15
	686 ·		ó
	732		33
	733		32
	734		16

DATA SYNTHESIS AND BACK-UF

- 8.1 SUMMARY
- 8.2 SYNTHESIS AND ANALYSIS

SECTION 9 ALLOWANCES

9.1 GENERAL

All standards will include a 15% PFB (personal, fatigue, and delaw allowance). This percentage is considered to be a realistic industry percentage.

7.2 REGULAR AND SPECIAL ALLOWANCES

At the present time, the Industrial Ensineering Department is continually monitoring the Blast and Faint Depts. for any changes in method and/or equipment that will change the allowance factor.

SECTION 10 STANDARDS APPLICATION

10.1 RESPONSIBILITY FOR MAINTENANCE OF STANDARDS

The Industrial Enginering Department will be responsible for the maintenance of all labor standards.

10.2 MAINTENANCE OF THE MANUAL AND TIME STANDARDS

The industrial Engineering Department will be responsible for the maintenance of the work management Manual, and all time standards within.

10.3 PROCEDURE FOR MAINTAINING THE MANUAL AND STANDARDS

The Industrial Engineering Department will make all revisions to the Work Management Manual and time standards and issue these revisions to the proper departments arid/or persons to be incorporated into their Work Management Manuals.

STANDARDS APPLICATION

10.4 DISTRIBUTION

The Industrial Engineering Department will distribute the Work Magement. Manual to all department and/or persons deemed by the head of the Industrial Engineering Division to recieve copies of the Works

A. GLOSSARY OF TERMS

ASTM Cups-standard laborators test cups for measuring viscosits.

Abrasion resistance-resistance to mechanical wear,

Abrasive-the agent used for abrasive blast cleaning! for for example, sand, grit, etc.

Absorption-process of soaking up, or assimilation of one substance by another.

Accelerator- catalyst; a material which accelerates the hardening of certain coatinss.

Acetone-dimethal ketone; solvent.

Acid number-a numerical index of free acid in an oil or resin.

Acoustic paint-paint which absorbs or deadens sound.

Acrylic resin-a clear resin polymerized from acrylic acid and methacrylic acid.

Activator-catalyst or curing agent.

Adaptors-cannectors for joining parts of different sizes.

Adduct curing agent-a curing agent combined with a portion of the resin.

Adhesion-bondins strength; the attraction of a cuating to the substrate.

Adsorption-process of attraction to a surface; attachment; the retention of foreign molecules on the surface of a substance.

Agglomeration-random attachment of single units to form groups; formation of masses of pigments; not dispersed.

Aging-remaining undisturbed.

Asitator-stirrer; mixer.

Air adjusting valve-spray gun valve controlling input air.

Air bubble-dry bubble in paint film caused by entrapped air.

Air cap-perforated housing for atomizing air at head of spray gun.

Air drying-dries by oxidation or evaporative drying by Simple exposure to air without heat or catalyst.

Air entraining agents-natural wood resins, fats, inorganic materials sulfonated compounds, and oils for air entrapment in concrete UP to 10%.

Air entrapment-inclusion of air bubbles in paint film.

Air hose-hose of air Spply Quality, uaually red.

Airless serasing-serasing without atomizing air, using hydraulic eressure.

Airjet (sandblasting)-a type of *sndblasting gun* in wgich the abrasive is convesed to the gun by partial vacuum.

Air manifold (pig)-common air supply for several limes.

Air transformer-device for controlled reduction in air pressure.

Air valve-control valve in air line system.

Air volume-quantity of air in cubic feet (usually per minute) at normal (atmospheric) pressure.

Alcohol-a flammable solvent, miscible with water; alcohols commonly used in painting are ethyl alcohol (ethanol) and methyl alcohol (methanol, wood alcohol).

Aldehydes-chemical compounds containing R-CHO grouping.

Aliphatic hydrocarbons-'straight chain' solvents of low solvent power, derived from petroleum.

Alkali-caustic; inorganic compounds which release hydroxyl groups in aqueous media.

Alkyd resins-resins prepared by reacting alcohols and acids,

Alligatoring-surface imperfections of paint having the appearance of alligator hide.

Allyl resins-resins prepared from allyl alcohol.

Ambient temperatre-roam temperature or temperature of surroundings.

American gallOn-231 cubic inches.

Amides-compounds containing oxygen and amino (NH2) groupings.

Amine adduct-anine curing agent combined with a portion of the resin.

Amines-organic substituted ammonia; organic compounds having an NH2 group.

Amino resins-those Cantsining reactive NH2 groups.

Amgl phenol resins-particular group of organic film formers.

Anchor pattern-rofile, surface roghness.

Angle blasting-blast cleaning at angles less than 90 degrees.

Angle or degree (airless spray cap)-orifice angle) controls width of spray pattern angle.

Anhydride-compound not containing water.

Anhydrous-dry; free of water in any form.

Anion-negatively charged ion.

Annular orifice-circular opening.

Anode-the electrode at which corrosion (oxidation) occurs.

Applicator-one who applies; tool for applying.

Arcing-swinging spray gun away from perpendicular.

Argillaceous-clay containing.

Aromatic hydrocarbons-ring compounds; strong solvents.

Asphalt-residue from distilling Petroleum; also a natural complex hydrocarbon find in Trinidad, USA and elsewhere.

Asphalt cut back-asphalt Plus thinner; asphalt soluton; asphalt coatings formed & dissolving aspait.

.Asphalt emulsion-asphalt dispersion; not a solution; a water emulsion of asphalt.

Asphalt impregnated-containing absorbed asphalt.

Atomize-break stream into small Particles.

Aurand Scaler-Properietary cleaning tool using cutter wheel bundles.

R

Baking finish-finish requiring heat cure.

Banding-identifying with strips of tape.

Barrier-shielding or blocking device.

Base-substrats.

Binder-resin; film former; vehicle.

Bitumen-product of asphalt or coal tar origin.

Bituminous coating-coal tar or asphalt based coating,

Blast angle-angle of nozzle with reference to surface; also angle of particle Propelled from wheel with reference to surface.

Blast cleaning-cleaning with propelled abrasives.

Bleaching-removing color.

Bleeder gun-a spray gun with no air valve; trigger controls fluid. flow only.

Bleeding-surface flotation of color from under coats.

Blistering-bubbling in dry or Partially dry paint film.

Block coat-(barrier coat or transition Primer)-tie coat (adhesive) between non-compatible paints.

Blooming-whitening; moisture blush; blushing.

Blow-back (spray term)-rebound.

Blushing-whitening and loss of gloss due to moisture; blooming.

Body-viscosity; middle or under (cost).

Boilers (solvent)-solvents of particular evaporation rate.

Bonderizing-a five-step proprietary custom process for phosphatizing.

Bonding-adhesion.

Boomerans (Mikrotest Gause)-a single magnet proprietary direct reading, dry film thickness sause.

Bounce-back--spray rebound.

Boxins-mixing by pouring from one container to another.

Bridsins-formins a skin over a depression.

Bright blast-white blast.

Brittleness-degree of resistance to cracking or breaking by bending.

Bronze tools-non-sparking tools.

Bronzing-formation of metallic sheen on a paint film.

Brushability-ease of brushing.

Brush-off blast--see NACE No. 4 in this alphabetical listing.

Bubbling-a term used to describe the appearance of bubbles on the surface while a coating is being applied.

Bulking value-volume per unit weight, usually expressed as sallons per pound.

С

Caking-hard settling of pigment from paint.

Calcareous-lime containing.

Calcimine-risment used in white wash.

Casein paint-water thinned paint with vehicle derived from milk.

Catalast-accelerator; curing agent; promoter.

Cat-ese--hole or holiday shaped like a cat's eye; cratering.

Cathode-the electrode at which corrosion (axidation) usually does not occur.

Cathodic protection-corrosion prevention by sacrificial anodes or impressed current.

Cation-positively charged ion.

Cavitation-undercutting; crevice forming; may be caused by fluids at high velocities and by flashing from liquid to gaseous state.

Cellulose resins-those prepared from cellulose derivatives.

Cement finishes-coatings containing fortland cement.

Centipoise-a metric unit of viscosity.

Centrifuse-device for separating solids from liquids by centrifugal action.

Chalking-powdering of surface.

Champagne finish (effervesence)-rapid escape of solvent visible by bubbling.

Check-shallow crack of short length.

Checking-formation of checks.

Chirping-(1) cleaning steel using special hammers. (2) type of paint failure.

Chlorinated rubber-a particular film former used as a binder, made by chlorinating natural rubber.

Cleaner-(1) detergent, alkali, acid or other cleaning material; usually water or steam borne. (2) solvent for cleaning paint equipment.

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Clean surface-one free of contamination.

Coal tar-black residue reminigs after cual is distilled.

Coal tar epoxy paint-paint in which binder or vehicle is combination of coal tar with epoxy resin.

Coal tar urethane Paint-paint in which binder or vehicle is combination of coal tar with Polyurethane resin.

Coatings-surface coverings; Paints; barriers.

Coat of Paint-one layer of dry paint, resulting from a single wet application.

Cobwebbing-Premature drying causing a spider web effect.

Cohesion-Property of holding self together.

Cold-checking-checking caused be low temperature.

Cold-cracking-cracking occuring at low temperature.

Color dynamics-scientific use of action colors.

Color-fast--non-fading.

Color retention-ability to retain original color,

Commercial bast-see NACE no, 3 in this alphabetical listing.

Compatibility-ability to mix with or adhere Properly to other components $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right)$

Composition-analysis; make-up.

Continuity-degree of being intact or pore free,

Contrast ratio- the co-efficient of reflection of the black surface area divided by the co-efficient of reflection of the white area,

Converter-that which causes change to different state; catalyst; curing agent; promoter.

Copolymers-large molecules resulting by simultaneous polymerization of different monomers,

Copper sulfate test (for mill scale)-copper color indicates abscence of mill scale when steel swabbed with 5 to 10 per cent solution.

Corrosion-decay; oxidation; deterioration due to interaction with environment; eaten away by degrees.

Corrosion fatigue-loss of strength caused by corrosion.

Coumarone-indene resins-particular type of ordanic binder or resin; coal tar resins.

Coverase-milage, usually in square feet per sallon for a given dry film thickness.

Cracking-splitting; disintegration of paint by breaks through film.

Cratering-formation of holes or deep degressions in paint film.

Crawling-shrinking of waint to form uneven surface.

Crazing-development of non-uniform surface appearance of mariad ting scales of cracks.

Creepase-see crawlins.

Cross-linking--a particular method by which chemicals unite to form films.

Cross-spray--spraying first in one direction and second at right angles.

Crystalline structure— a structure in which components have a resular pattern of planes.

Curing-setting up; hardening.

Curing agent-hardener; promoter.

Curtaining-sagging.

Curtains-sags having a draped effect.

Cacling (of pump)-interval between strokes.

B

Dame-wet; not dry.

Deadman valve-shut-off valve at blast nozzle, operated by remote control.

Becorative painting-architectural painting; aesthetical painting.

Degreaser-chemical solution (compound) for grease removal.

Delamination-separation of lawers.

Bensity-weight per unit volume.

Determent-cleaning asent.

Deterioration-decay.

Dew point-temperature at which moisture condenses.

Diluent-a liquid which lowers viscosits and increases the bulk but is not necessarily a solvent for the solid ingredients; a thinner.

Discoloration-color chanse.

Dispersion-suspension of one component in another.

Distensibility-ability to be stretched.

Distillation-purification or separation by volatilizing and condensing.

Doctor blade-knife applicator.

Dolomite-carbonate of calcium and magnesium.

Double regulation-regulation of both pot and gun air pressure.

Brier-chemical which promotes exidation or drains of paint.

Drift (overseray)-seray loss.

Bros (scaffold)-one vertical descent of the scaffold.

Drop cloth-protective cover.

Dry spray-overspray or bounce back; sand finish due to spray particle being partially dried before reaching the surface.

Drying oil-an oil which hardens in air.

Brying time-time interval between application and final cure.

Dry to handle-time interval between application and ability to pick up without damage.

Dry to recoat-time interval between application and ability to receive next cost satisfactorily.

Dry to touch-time interval between application and tack-free time.

Bulling-loss of gloss sheem.

Ε

Edging-striping.

Efflorescence-deposit of soluble white salts on surface of brick and other masonry.

Esschell-semi-sloss; dull.

Elasticity-degree of recovery from stretching.

Elcometer-a two-prons proprietary magnet direct reading dry film thickness sause.

Electrolysis-decomposition by means of an electric current.

Electrolyte-a substance which disassociates into ions when in solution or a fused state and which will then conduct an electric current.

Electrostatic spray-spraying in which electric charge attracts paint to surface.

Elongation-stretch.

Emulsion paint-water base paint with an emulsified resin vehicle.

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Enamel-pigmented varnish; any hard, glossy costing.

Endothermic-a change or process which takes place with absorption of heat.

Epoxy resins-film formers usually made from bisphenol and epichlorohydrin.

Epoxy amine-amine cured epoxy resin.

Epoxy adduct-epoxy resim having all of the required amine incorporated by requiring additional epoxy resim for curing.

Epoxy ester-epoxy modified oil; single package epoxy.

Erosion-wearing sway of paint films; heavy chalking tends to accelerate erosion.

Ester-reaction product of alcohol and acid; an organic sait.

Estimate-compute; calculated cost of a job.

Etch-surface attack by chemical means.

Evaporation rate-rate of solvent release.

Evaroration rate, final-time interval for complete evaporation of all solvents.

Evaporation rate, initial-time interval during which low boiling solvent evaporates completely.

:

Exothermi-a change or process in which heat is given off.

Explosion-cratering from release of solvent after surface is dry, also see blistering.

Explosive Limits-a range of the ratio of solvent vapor to air in which the mixture will explode if ignited. Below the lower or above the higher explosive limit the mixture is too lean or too rich to explode. The critical ratio runs from about one to seven percent of solvent vapor by volume at atmospheric pressure.

Extender-filler; cheapener.

Extension sun-pole sun.

External mix-seras equipment in which fluid and air Join outside of sircap.

F

FDA-see Food & Drus Administration.

Fadeometer-device for measuring color retention or fade resistance.

Fading-reduction in brightness of color.

Fallout (spray)-overspray.

False body-thixotropic.

Fanning (spray gun technique)-arcing.

Fan pattern-geometry of spray pattern.

Fast drying-dry for recoat in less than 24 hours, quick hardening paint.

Fat paint-too much oil.

Fatty acid-a component of certain drying oils; vegetable oil derivitive.

Feather edse-tapered edse.

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Feathering-(1) flickering a sun at the end of each stroke: (2) tapering edge.

Federal specifications-sovernment specifications for formulations, raw material components, or performance,

Ferrous-iron containing.

Field painting-painting at the Job site.

Filler-extender, bulking agent; inert pigment.

Film build-dry thickness characteristics per coat.

Film former-a substance which forms a skin or membrane when dried from a liquid state.

Film integrity-degree of continuity of film.

Film thickness sause-device for measuring film thickness above substrate: dry or wet film thickness sauses are available.

Filter-strainer; purifier.

Fineness of grind-measure of particle size or roughness of liquid paint: degree of dispersion of pigment in binder.

Finders (airless)-broken spray pattern; finderlike.

Fire retardant paint-a paint which will delay flaming or overheating of substrate.

Fish eye-see cratering.

Flaking-disintegration in small pieces or flakes.

Flammability-measure of ease of catchins fire; ability to burn.

Flame cleaning-method of surface preparation of steel using flame.

Flash point-the lowest temperature at which a given flammable material will flash if a flame or spark is present.

Flat finish-dull finish; no sloss.

Flatting agent-paint ingredient causing low gloss,

Flexibility-ability to be bent without damage.

Floating-separation of pigment colors on surface.

Flocculation-see asslomeration.

Flocking-a coating process producing velvet-like surfaces.

Flooding-see floating.

Flow-a measure of self spreading ability; spread.

Fluid adjusting screw-a screw on a spray gun which controls the amount of fluid entering the gun.

Fluid flow-a measure of flow through a sun with atomizing air shut off.

Fluid hose-specially designed hose for paint materials; usually black.

Fluid nozzle-fluid tip or orifice; in a broader sense it connotes needle and tip combination.

Fluid tip-orifice in sun into which needle is seated.

Foamins-frothins.

Fossins-mistins.

Food & Drus Administration (FDA)-asency involved with linings for food or Pharmaceutical service.

Forced drains-acceleration of drains by increasing the temperature above ambient temperature accompanied by force air circulation.

Ford cup-a proprietary viscosity measuring device.

Frothins-foamins.

Fundicide-a substance poisonous to fundi; retards or prevents fundi growth.

Fundus-and of a group of plants, such as molds, mildew, mushrooms,

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smuts, etc.

Furane resins—dark chemical resistant resins made from furfuryl alcohol, furfural and phenol.

Furfural-a particular type of aldehyde used to make furane resins.

G

Galvanic corrosion-corrosion of dissimilar metals in electrical contact.

Galvanized steel-zinc plated steel applied in a molten bath of zinc.

Gas checking-fine checking; wrinkling, frosting under certain draing conditions; said to be caused by rapid oxesen absorption or by impurities in the air.

Gel-a Jella-like substance.

Gellins (selation)-conversion of a liquid to a sel state.

Generic-belonsing to a particular family.

Gilsonite-a special bitumen; an asphalt found in Utah; one of the purest of natural bitumens.

Glazing (paint term)-application of transparent or translucent pisment on a painted surface to produce certain blended effects.

Gloss-sheen; ability to reflect; brightness; lustre.

Gloss meter- for measuring sheen or lustre.

Gloss retention-ability to retain original sheem.

Grain-surface appearance, usually of wood.

Gray blast-commercial blast.

Grind gause (Heseman)-proprietary instrument for measuring smoothness of liquid paint.

Grit-an abrasive obtained from slas and various other materials.

Ground wire (airless)-a wire attached to dissipate electrostatic charge.

Grooving (roofing term)-formation of shallow channels.

Guide coat-a coat similar to the finish or color coat but of a different color to assure sood coverase.

Gun distance-space between tip of sun and work.

н

Halide-a compound containing fluorine, bromine, chlorine, or iodine.

Halosen-bromide, chlorine, fluorine or iodine.

Hardener-curing agent; promoter; catalast.

Hardness-the degree a material will withstand pressure without deformation or scratching.

Hazins-cloudins.

Hesiometer-proprietary device for measuring cohesion and adhesion.

Heavy centered pattern-spray pattern having most paint in center, less at edges.

Hiding power-ability to obscure substrate.

High boiling solvent-a solvent with an initial boiling point above 302F (150C).

High build-producing thick dry films per coat.

High flash naptha-an aliphatic solvent having a high flash point, (113F, 45C).

Hold out-ability (or property) to prevent soaking into substrate.

Holiday-pinhole; skip, discontinuity; voids.

Holiday detector-device for detection of pinholes or holidays.

Honeycombing-lack of vertical film integrity; formation of cell structure; voids.

Hose cleaner-mechanical device promoting a beneficial swirling action to cleaning solvent.

Hose restriction-impediment; reduced diameter.

Hot spray-spraying material heated to reduce viscosity.

Hot surface-above 120 degrees F, (48.90).

Humidity-measure of moisture content; relative humidity is the ratio of the quantity of water vapor in the air to the given temperature.

Hummocking (roofing term)-formation of raised islands.

Hydraulic spraying (see airlines)-spraying by hydraulic pressure.

Hydrophilic-having an affinity for water; capable of uniting with or dissolving in water.

Hydrophobic-having an antagonism for water; not capable of uniting or mixing with water.

Hydroxyl-chemical radical; OH; basic nature.

Hygroscopic-having a tendency to absorb water.

Ι

Impact resistance-a measure of resistance to a blow: ability to resist deformation from impact.

Incompatability-inability to mix with or adhere to another material.

Indicator-(pH) paper-a vesetable dued paper indicating relative
acidity or basicity.

Inert-not reactive.

Inert pigment-a non-reactive pigment; filler.

Inflammability-measure of ease of catching fire; ability to burn; use of the word flammability due to the possible misinterpretation of the prefix "in" as a negative.

Inhibitive pigment-one which retards corrosion process.

Inhibitor-an agent added to retard corrosion.

Inorganic-containing no carbon.

Inordanic coatings-those employing inordanic binders or vehicles.

Insulation- thermal, electrical, or sound barrier material; a
poor conductor.

Intercoat contamination-presence of foreign matter between successive coats.

Intermediate coat-middle coat; suide coat.

Internal mix-a spray sun in which the fluid and air are combined before leaving the sun.

Intumesce—to form a voluminous char on ignition; foaming or swelling when exposed to flame.

Ion-an electrically charged atom or group of atoms.

Iron phosphate coating-conversion coating; chemical deposit.

Isocyanate resins-resins characterized by CNO grouping polyurethane resins.

J

Japan-dark colored slossy varnish.

Japan drier-weak mixture of driers.

Jeer test-continuity test using low voltage circuit.

K

KB value-measure of solvent power.

KTA panel- a proprietary paint test panel with unique configuration and markings.

KTA rating system-10 for no failure, 0 for complete failure; ; proprietary method of measuring paint disintegration over KTA panels.

Kauri reduction-test for solvent power of petroleum solvents.

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Ketones-organic solvents containing CO grouping; commonly used ketones are acetone-dimethyl ketone.

Kreb units-units of viscosity.

L

Lacquers-coating which dry by evapation of solvent.

Laitance-milky white deposit on new concrete: efflorescence.

Laminar scale-rust formation in heavy layers.

Lap-see overlap.

Latex-rubber like; a common binder for emulsion (water) raints; there are natural and synthetic latexes.

Leaching-the process of extraction of a soluble component from a mixture with an insoluble component by percolation of the mixture with a solvent, usually water.

Leafing-orientation of Pigment flakes in horizontal planes.

Levellins-flowing out to films of uniform thickness; loss of brush marks in paint.

Lifting-softening and raising of an undercoat by application of a top coat.

Linings-internal barriers; linings may be coated or sheet type.

Livering-formation of curds or selling.

Long oil-a resin having a large quantity of oil cooked per 100 pounds of resin.

Loose flake (mill scale)-thin, easily-removed scale.

Low boiling solvent-a solvent with an initial boiling point below 302F (150C).

Low pressure spraying-conventional air spraying.

М

MAC (maximum allowable concentration)-maximum allowable concentration in parts of solvent vapor to one million parts of air in which a worker can work not more than eight consecutive hours without an air fed mask; the lower the MAC number, the more toxic the solvent.

MEK-see methyl ethyl ketone.

MIRK-see methyl isobutyl ketone.

MVT-see moisture vapor transmission..

Maintenance painting-(1) repair painting; any painting after the initial paint job; in a broader sense it includes painting of items installed on maintenance; (2) all painting except that done solely for aesthetics.

Maleic resins—a class of resins obtained from polymerization of maleic acid or maleic anhydride with alsohols; rosins; etc.

Mandrel test- a physical bending test for adhesion and flexibility.

Masking-covering areas not to be painted.

Mass tone-base covering.

Mastic-a heavy bodied coating of high build.

Melamine resins-synthetic resins which are condensate products of formaldehyde and melamine; they require bakins.

Metallizing-mechanical deposition of one metal on another.

Methyl ethyl ketone (MEK)-a strong solvent.

Methyl isobutyl ketone(MIBK)-a strong solvent.

Mikrotest Gause-a proprietary single magnet dry film thickness gause.

Mil-one one-thousandth of an inch; .001'.

Milage-coverage rate; square feet per gallon at a given thickness.

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AFFENDICES

Mild steel-structural steel SAE 1020.

Mildew-fundus.

Mildewcide-substance poisonous to mildew; prevents or retards growth of mildew.

Mill scale-oxide layer formed on steel by hot rollings.

Mill scale binder-gray oxide layer between mill scale and steel.

Mill white-one coat high hiding power interior paint.

Mineral spirits-aliphatic solvent with solvence similar to tursentine.

Misciple-capable of mixing or blending uniformly.

Misses-holidays; skips; voids.

Mist-coat--thin tack coat; thin adhesive coat.

Moisture and oil separator-trap on air compressor or in air lines.

Moisture vapor transmission (MVT)-moisture vapor transmission rate through a membrane; also see perm.

Monomer-composed of single molecules; a basic chemical used to make polymers.

Mopping-swabbing, as with roofing asphalt.

Mottling-speckling; an eneven color on paint.

Mud-cracking--irregular cracking, as in a dried mud puddle.

Multicolor finishes-speckled finishes; paints containing flecks of colors different from the base color.

N

NACE No. 1 white metal blast cleaned surface finish-this finish is defined as a surface with a gray-white, uniform metallic color, slightly roughened to form a suitable anchor pattern for coatings; this surface shall be free of all oil, grease, dirt, visible mill scale, rust,

corrosion products, oxides, paint, or any other foreign matter; the surface shall have a color characteristic of the abrasive media used; photographic or other visual standards of surface preparation may be used to further define the surface.

NACE No. 2 near-white blast cleaned surface finish-this finish is defined as one from which all oil, srease, dirt, mill scale, rust, corrosion products, exides, paint or other foreign matter have been removed from the surface except for very light shadows, very slight streaks or slight discolorations; at least 75% of the surface shall have the appearance of a surface blast cleaned to a white metal surface finish and the remainder shall be limited to the light discoloration mentioned above; photographic or other visual standards of surface preparation may be used to modify or further define the surface.

NACE No. 3 commercial blast cleaned surface finish-this finish is defined as one from which all oil, srease, dirt, rust scale, and foreign matter have been completely removed from the surface and all rust, mill scale, and old paint have been completely removed except for slight shadows, streaks, or discolorations; if the surface is pitted, slight residues of rust or paint may be found in the bottom of the pits; at least two-thirds of the surface area shall be free of all visible residues and the remainder shall be limited to light discoloration, slight staining or light residues mentioned above; photographic or other visual standards may be used to further define the surface.

NACE No. 4 brush-off blast cleaned surface finish-this finish is defined as one which oil, arease, dirt, rust scale, loose mill scale, loose rust, and loose paint or coatings are removed completely, but light mill scale and tights. adhered rust, paint and coatings are permitted to remain provided they have been exposed to the abrasive blast pattern sufficiently to expose numerous flecks of the underlying metal fairly uniformly distributed over the entire surface; photographic or other visual standards of surface preparation may be used to further define the surface.

Naptha-an aliphatic solvent cut; hadrocarbons of the ChH2n+2 series.

Near-white blast cleaning-see NACE No.2 in this alphabetical listing.

Needle (spray sun)-fluid metering pin.

Neoprene-a rubber-like film former; a type of elastomers based on polymers of 2-chloro-butadiene-1;3.

Nondrying oil-one which will not harden in air.

Nonferrous-containing no iron.

Nonflammable-incombustible.

Nontoxic-not poisonous.

Nonvolatile-solid; non-evaporating; the sortion of a saint left after the solvent evaporates.

Nozzle-orifice; sandblast nozzle; seras sun nozzle.

Nylon resins—a particular group of film formers having recurring amide groups—-CONH, as an integral part of the main polymer chain; polyamide resins.

0

Oil absorption-a measure of the ability of pigments to absorb oil.

Oil color-coloring (pigment or due) dispersed in oil.

Oil length-gallons of oil reacted with 100 pounds of resin.

Oleoresinous-film former containing oil and resin.

Opacity-hiding power.

Orange peel-dimpled appearance of dried film; resembling orange peel.

Organic-containing carbon.

Organosol-film former containing resin plasticizer and solvent; colloidal dispersion of a resin in plasticizer containing more than 5% volatile content.

Orifice-opening; hole.

Osmosis-transfer of liquid through a paint film or other membrane.

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Osmotic blistering-formation of blisters containing liquid.

Overatomized-dispersed too finely by use of excessive atomizing air pressure.

Overcoat-second coat; top coat.

Gverlap-portion (width) of fresh paint covered by next layer.

Overspray-sprayed paint which did not hit target; waste.

Omidation-combination with oxesen; drains; burnins; rustins.

Oxide-chemical compound of an element, usually a metal, with oxygen.

F

FVA-see polyvingl acetate.

PVC-see pigment volume concentration or polyvingl chloride.

Paint heater-device for lowering viscosity of paint by heating.

Paint program-comprehensive painting plan.

Paint project-single paint job.

Faint system—the complete number and type of coats comprising a paint job. In a broader sense, surface preparation, pretreat—ments, dry film thickness, and manner of application are included in the definition of a paint system.

Particle size distribution-percentages of particles of different screen sizes.

Pass (spray)-motion of the spray dum in one direction only.

Passivation-act of making inert or unreactive.

Pattern length-height of spray mattern.

Pattern width-width of spray pattern at vertical center.

Feeling-failure in which paint curls from substrate.

Ferm-a unit for expressing MVT rate; a perm-inch = 1 grain of water

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per hour per sauare foot per one inch thickness (except where otherwise noted) per one inch difference in mercury vapor pressure on each side of membrane.

Fermeability-quality or state of being permeable.

Phenolic resins-particular group of film formers, phenol-formaldehyde type.

Phosphatize-form a thin inert phosphate coating on surface usually by treatment with H3 PO4 (phosphoric acid).

Phthalic resins-a particular group of film formers; alkgds.

PH value-measure of acidity or alkalinity; PH 7 is neutral; the PH value of acids ranges from 1 to 7, and of alkalies:
(bases) from 7 to and including 14.

Pickling-a dissing process for cleaning steel and other metals; the sickling agent is usually an acid.

Pig-see air manifold.

Pigment grind-dispersion of pigment in a liquid vehicle.

Pigments-solid coloring agents.

Pisment volume concentration (PVC)-percent by volume occupied by pisment in dried film.

Pid tail-finder-like spray pattern.

Pitting-formation of small, usually shallow depressions or cavaties.

Pin-holing--formation of small holes through the entire thickness of coating; see cratering.

Plasticizer-a paint insredient which imparts flexibility.

Plastisol-film former containing resin and plasticizer with no solvents.

Pock warks-pits; craters.

Pole-gun--spray gun equipped with an extension tube.

Polymerization-formation of large molecules from small ones.

Polymer-the product of polymerization; large molecules.

Polavinal acetate (PVA)-a santhetic resin used extensively in emulsion (water) paints; produced by the polamerization of vinal acetate.

Polyvingl chloride (PVC)-a synthetic resin used in solvent type coatings and fluid-bed coatings, produced by the polymerization of vingl chloride; PVC is also used in emulsion (water) paints.

Polyvingl chloride acetate-a combination of PVA and FVC used in coatings.

Porosity-hole; degree of integrity or continuity.

Pot-life--time interval after mixing during which liquid material is usable with no difficults.

Precipitation-settling out of solid material.

Pressure balance-in spray painting, relationship of pot pressure to atomizing air pressure.

Pressure drop-loss in pressure due usually to length or size of line or hose.

Pressure feed-fluid flow caused by application of air or hydraulic pressure on paint.

Pressure feed paint tank (pressure pot)-fluid container in which fluid flow is caused by air pressure.

Preventive maintenance painting-spot repair painting; touch up or full coats of paint before rusting starts.

Prime coat-first coat.

Primer-material used for prime coat.

Production rate (so ft/day)-measurement of surface area cleaned or coated in one working day by one man.

Profile-surface contour as viewed from edge.

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Profile derth-average distance between tops of peaks and bottom

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of valleys on the surface.

Proprietary-available on open market under brand name.

Protective life-interval of time during which a paint system protects substrate from deterioration.

Pulsation-surging.

Pump bypass-recirculation line which returns fluid to container.

Fump ratio-multiplier of input pressure which indicates output pressure; ratio of air piston area to fluid piston area.

Q

Quick release fittings-snap-lock fittings.

F

Reaching (spray gun) - extending spray stroke too far.

Rebound-paint spray deposit bounced back.

Recoat time-time interval required between application of successive coats.

Red label goods-flammable or explosive materials with flash points below 80F (26.7 C).

Reducer-a material which lowers viscosity but is not necessarily a solvent for the particular film former; thinner.

Reflectance-degree of light reflection.

Repainting-repetition of a complete painting operation including surface preparation.

Resin-a material, natural or synthetic, contained in varnishes, lacquers, and paints; the film former.

Respirator-safety breathing mask.

Reticulation-a surface defect of net-like appearance.

Rise-heisht.

Roller coating-the act of, or the material, applied with a roller.

Round pattern-circular spray pattern.

Runs-curtains; sass.

Rust-corroded iron; red iron-oxide; also other metal oxides formed by corrosion.

Rust bloom-discoloration indicating the beginning of rusting.

S

SSFC-Steel Structures Painting Council.

Safety valve-pressure release valve preset to safe operating limit.

Sags-runs.

Salt spray-a sait for test environment.

Sandblast-blast cleaning using sand as an abrasive; for different in this alphabetical listing.

Sandy finish-a surface condition having the appearance of sandraper overspray.

Saturant-that substance, usually a liquid, which saturates something

Saturated-holding the maximum amount of saturant it is capable of holding.

Scale-laminar rust.

Scaler-a hand cleaning chisel.

Scaling-process of delamination.

Sealer-a low viscosity (thin) liquid applied before priming wood or masonry.

Seeding-formation of small agglomerates.

Separation-division into components or lawers by natural causes.

Settling-caking; sediment.

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Shade-degree of gray lone in a color.

Shelf life-maximum interval in which a material may be stored in usable condition.

Shellac-a resin secreted by insects; a lacquer; resin in alcohol.

Shielding-protecting; protective cover assinst mechanical damage.

Shop coat (prime)-first coat applied in fabricating shop.

Short oil-a varnish prepared by cooking a relatively small quantity of oil with 100 pounds of resin, quick drying; brittle; less than 25 gallons of oil per 100 pounds of resin.

Shot blasting-blast cleaning using steel shot as the abrasive.

Shrinkage-decrease in volume on drying.

Silicate paints-those employing silicates as binders.

Silicone resins-a particular group of film formers; used in water proof and high temperature paints; organosiloxane polymers; semi-organic polymers containing silicon.

Silkins-a surface defect characterized by parallel hairlike striations in coated films.

Skinning-formation of a solid membrane on top of a liquid.

Skips-holidays; misses; uncoated area; voids.

Slow drying-requiring 24 hours or longer before recoating.

Slug-surge of material; blob.

Solid-non-volatile portion of paint.

Solids volume-percentage of total volume occupied by non-volatiles.

Solubility-degree to which a substance may be dissolved.

Solution-a liquid in which a substance may be dissolved.

Solvency-measure of ability to act as a solvent.

Solvent-a liquid in which another substance may be dissolved.

Solvent balance-ratio of amounts of different solvents in a mixture of solvents.

Solvent pop-blistering caused by entrapped solvent.

Solvent power-see solvency.

Solvent release-ability to permit solvents to evaporate.

Solvent wash-cleaning with solvent.

Spalling-the cracking, breaking or splintering of materials, usually due to heat.

Spark testing-detection of holidays (flaws) using electric spark.

Spark-proof tools--bronze beryllium tools.

Specific gravity-ratio of weight of a given volume to weight of an leaual volume of water at the same temperature.

Specular gloss-mirror-like reflectance.

Spewins- irresular or intermittent sursins with subsequent liquid spillage.

Spider (power staging) - a proprietary mechanical boat swain's chair or platform.

Spit-sputter.

Spot repair-preventive maintenance; repainting of small areas.

Spray cap-front enclosure of spray sun equipped with atomizing air holes.

Spray head- combination of needle, tip, and air cap.

Spray pattern-configuration of spray, sun held steady.

Spreading rate-coverage, milage, usually at specified dry thickness.

Sputtering flow-spitting; surging.

Squeesee-rigid bar applicator.

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AFFERDICES

Static wire-ground wire.

Steam clean-a cleaning process using live steam.

Strain-to filter.

Streaks-a surface defect characterized by essentially parallel lines of different colors or shades.

Striping-edge painting prior to priming.

Stroke (spray)-a single pass in one direction.

Styrene-butadiene-resin; copolymer of styrene and butadiene.

Substrate-surface to be painted.

Suction feed (spray sun)-one in which the fluid is symbole to the spray head.

Surface tension-cohesive force on liquid surface.

Surfacer-a paint used to smooth the surface before finish coats are applied.

Surge-see spewing; non-continuous flow.

Surse chamber (airless spray)-a device to eliminate uneven fluid flow.

Sweating-condensing moisture on a surface.

Swelling-increasing in volume.

Swivel fitting-one capable of being moved in any direction.

Swivel head-spray head adjustable to deliver spray in many directions

Synthetic-manufactured; not occuring naturally.

Tail line-short piece of blast hose smaller than the main hose to permit better maneuverability.

Tails (airless spray)-finser-like spray pattern.

Tank whites-good hiding; self cleaning; white paints; usually alkyds.

Tapered patternmelliptical shaped spray pattern; a spray pattern with conversing lines.

Tape test- a particular type of adhesion test.

Tenacity- ability to stick together; cohesiveness; adhesiveness.

Tensile strength-resistance to elongation; the greatest longitudinal stress a substance can bear without rupture or remaining permanently elongated.

Terpene resins-a particular group of film formers, prepared from isomeric hydocarbons such as turpentine or similar oleo-resins.

Test pattern-spray pattern used in adjusting spray gun.

Thermoplastic-mobile or softens under heat.

T

Thermosetting-becomes rigid under heat and cannot be remelted.

Thinners-volatile organic liquids for reducing viscosits; solvents.

Thixotropic-false-bodied; a sel which liquifies with asitation but sels again on standing.

Tinsley Gause-a proprietary pencil-like, single magnet, dry film thickness gause.

Tint-degree of white in a color; a color produced by the mixture of white paint or pigment with a non-white colored paint or pigment.

Toner-a color modifier.

Tooth-profile; mechanical anchorage; surface roughness.

Top coating-finish coat.

Touch-up painting-spot repair painting usually conducted a few months after initial painting.

Toxic-poisonous.

Toxicity-degree of poisonousness or harmfulness.

Transition primer (block or barrier coat)-coating compatible with primer and also with a finish coat which is not compatible with primer.

Trigger-operating lever of spray dun.

Trissering-intermittent squeezing and releasing of trisser.

Tubercule-nodule; pimple.

Two-component sun--one having two separate fluid sources leading to spray head.

U

Understomized-not dispersed or broken-up fine enough.

Unit cost-cost per siven area.

Urea resins-a particular group of film formers; (amino resins).

Urea formaldehyde-a particular group of film formers; usually requires baking; produced by reacting urea with formal-dehyde.

Urea melamine-see melamine.

Urethane resins-a particular group of film formers; isocymate resins.

U

VMMP nartha-varnish and paint manufacturers nartha; an aliehatic solvent.

Vapor degreasing-a cleaning process utilizing condensing solvent as the cleaning agent.

Vaporization-conversion from liquid or solid to a daseous state; phase change.

Varnish-liquid composition of oil, resin, thinners and driers, which is converted to a transparent or translucent solid film after application as a thin lawer or coat.

Vehicle-liquid carrier; binder; anything dissolved in the liquid portion of a paint is a part of the vehicle.

Veiling-curtaining; sagging.

Venturi-a tube having a restriction to promote velocity increase.

Vertical pattern-a spray pattern whose longest dimension is vertical.

Vinul acetate-a particular resin monomer; obtained by reaction of acetylene and acetic acid; see PVA, polyvinul acetate.

Vinyl chloride-a particular resin monomer; obtained by reaction of acetylene and hydrochloric acid, cracking of ethylene dichloride, or reaction of ethylene dichloride and soda; see PVC, polyvinyl chloride.

Vinyl coating-one in which the major portion of binder is of the vinyl resin family.

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Vinal copolamer-resins produced by copolamerizing vinal scetace and vinal chloride.

Vinel resins-a particular group of film formers; see PVA and PVC.

Viscosity-a measure of fluidity.

Viscosity cup-a device for measuring viscosity.

Voids-holidays, holes, skips.

Volatiles-fluids which evaporate rapidle.

Volatile content-percentage of materials which evaporate.

u

Washing-erosion of a paint film after rapid chalking.

Wash primer-s thin inhibiting paint usually chromate pigmented with a polyvingl butgrate binder.

Water blasting-blast cleaning using high velocity water.

Water spotting-a surface defect caused by water droplets.

Weatherometer-a testing device intended to simulate atmospheric weathering.

Weld Joints-beads of weld Joining two members.

Weld slas-amorphous deposits formed during welding.

Weld spatter-beads of metal left adjoining a weld.

Weld splatter-see weld spatter.

Wet edge-fluid boundary.

Wet film sause-device for measuring wet film thickness.

Wet film thickness-thickness of liquid film immediately after application.

Wet spray-spraying so that surface is covered with paint that has not started to dry.

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Wetting strength—the maximum distance or penetration the vehicle is capable of delivering the paint or coating assembly in a vertical or horizontal direction on a specific substrate.

Wetting time—the time required for a vehicle to reach the end roint of distance and renetration on a metal.

Whisping (spray gum)-arcing, waving.

Whip blast-see NACE No. 4 in this alphabetical listing.

Whis line-see tail line.

White blast-see NACE No. 1 in this alphabetical listing.

Whiting-Paris white: Bliders white: fine sround: haturally occuring clacium carbonate: CaCO3: about 98% Pure. Used as an irexpensive filler and extender.

Wicking-absorption of liquid by capillary action.

Wire brush-a hand cleaning tool comprised of bundles of wires; also the act of cleaning a surface with a wire brush; including power brushes.

Wrinklins-a surface defect resembling the skin of a grune.

Wrist action (spray sun)-swiveling of wrist without arcins forearm.

Υ

Yellowing-development of yellow color or cast, in whites, on esing.

7

Zinc shosphate coatins—a thin, inordanic deposit formed on zinc treated with shosphoric acid.

Zinc silicate-inordanic zinc coating.

Zinc sellow-zinc chromate.

WORK MANAGEMENT MANUAL

IN-SHOP BLASTING MANUAL

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- BECTION 4 LAYOUTS AND MATERIAL FLOW

4.1 WORK AREAS

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7001H-7	B001H-3B001F	POWER	: :
		FUWER	
Name	Location		Bods/Frag/fT
Name	Location	1	Bods/Fras/PT
Name WORKPLACES:	Location 		Bods/Fras/fT
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WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE FOWER BOOTH-1 BOOTH-3	65,0 65,5 66,15 35,21 46,0 35,1	6,5 6,5 5,5 10,1 4,1 10,1	Bods/Fras/fT
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE FOWER BOOTH-1 BOOTH-3 BOOTH-5	65,0 65,5 66,15 35,21 46,0 35,1 17,1	6,5 6,5 5,5 10,1 4,1 10,1 10,1	Bods/Fras/fT
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNEK-STORAGE FOWER BOOTH-1 BOOTH-3 BOOTH-5 BOOTH-2	65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1	Bods/Fras/fT
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WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE FOWER BOOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-4	65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1	Bods/Fras/FT
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NOZZLE	300TH-6	FRAG
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AIRHOSE	P-CLEANING -	FRHU
PAINTCOVER	P-CLEANING	7R+3
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THINNERTANK	P-HIXING	
MIXCAN	P-MIXING	
SPRAY-TIP	P-MIXING	
THINNERPAIL	P-MIXING	. FRAG
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INNER-FILTER	P-MIXING	
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PAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	POWER	149
FAINT-OFFICE	BOOTH-1	147
PAINT-OFFICE	BOOTH-3	165
PAINT-OFFICE	B00TH-5	167
FAINT-OFFICE	BOGTH-2	127
PAINT-OFFICE	BOOTH-4	153
PAINT-OFFICE	B00TH-6	163
PAINT-OFFICE	P-CLEANING	135
PAINT-OFFICE	P-MIXING	153
PAINT-OFFICE	LOCKERS	167
PAINT-OFFICE	FLAM-LIGUID	170
PAINT-OFFICE	TABLE	167
PAINT-OFFICE	Paint-Area	153
PAINT-OFFICE	P-DOOR	120
PAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
FAINT-STORAGE	POWER	63
PAINT-STORAGE	BOOTH-1	é1
PAINT-STORAGE	B00TH-3	63
PAINT-STORAGE	200TH- 5	75
FAINT-STORAGE	BOOTH-2	43
PAINT-STORAGE	BOOTH-4	57
PAINT-STORAGE	BOOTH-6	73
PAINT-STORAGE	P-CLEANING	. 49
PAINT-STORAGE	P-MIXING	55
PAINT-STORAGE .	LOCKERS	77
FAINT-STORAGE	FLAM-LIGUID	75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	Paint-Area	ói
PAINT-STORAGE	P-DGOR	36
TOOL-ROOK	THINNER-STORAGE	217
TOOL-ROOM	FOWER	233
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	E-HT004	237
TOOL-ROOM	B00TH-5	255.
TOOL-ROOM	B00TH-2	217
TOOL-ROOM	BOOTH-4	231
TOOL-ROOM	BOOTH-6	250
TOOL-ROOM	P-CLEANING	225
TOOL-ROOM	P-MIXING	233
TOOL-ROOM	LOCKERS	263
TOOL-ROOM	- FLAM-LIQUID	261
TOOL-ROOM	TABLE	262
TOOL-ROOM	PAINT-AREA	233

		n= /
TOOL-ROOM	F-D00R	236
THINNER-STORAGE	POWER	38
THINNER-STORAGE	BOOTH-1	36
THINNER-STORAGE	B00TH-3	45
THINNER-STORAGE	B00TH-5	55
THINNER-STORAGE	BOOTH-2	26
THINNER-STORAGE	B00TH-4	40
THINNER-STORAGE	B00TH-6	47
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING	39
THINNER-STORAGE	LOCKERS	ຉຨ
THINNER-STORAGE	FLAM-LIGUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE .	PAINT-AREA	36
THINNER-STORAGE	F-DOOR	28
POWER	ROOTH-1	14
POWER	ROOTH-3 ·	29
POWER	300TH-5	37
POWER	ROOTH-2	27
FOWER	BOOTH-4	33
POWER	RODTH-6	43
FOWER	F-CLEANING	30
POWER	P-HIXING	21
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	28
POWER	P-DOGR	15
BOOTH-1	BOOTH-3	16
BOOTH-1	BGOTH-5	28
B00TH-1	B00TH-2	23
B00TH-1	BOOTH-4	27
800TH-1	BOOTH-6	33
800TH-1	P-CLEANING	25
BOOTH-1	P-MIXING	14
BOOTH-1	LOCKERS	35
BOOTH-1	FLAM-LIQUID	41
B00TH-1	TABLE	39.
BOOTH-1	PAINT-AREA	21
B00TH-1	P-DOOR	17
B00TH-3	BCOTH-5	18
BOOTH-3	BOOTH-2	29
BOOTH-3 BOOTH-3	BOOTH-4	23
£007H-3	BCOTH-6	26
ROOTH-3	P-CLEANING	26
B001H-3	P-MIXING	11
BGOTH-3	LOCKERS	21
פ־חוטטפ	~~~	

ECOTH-3	FLAM-LIGUID	29
500TH-3	THBLE	2à
2001H-3	PAINT-AREA	13
B00TH-3	F-000R	27
ROOTH-5	B00TH-2	33
800TH-5	BOOTH-4	26
KOOTH-5	BOOTH-6	23
800TH-5	P-CLEANING	30
800TH-5	F-MIXING	20
800TH-5	LOCKERS	ió
	FLAM-LIQUID	22
BOOTH-5	TABLE	19
800TH-5		17
800TH-5	PAINT-AREA	37
B00TH-5	P-000R	
B00TH-2	B00TH-4	18
B00TH-2	BOOTH-6	28
B00TH-2	P-CLEANING	13
BOOTH-2	P-MIXING	24
600TH-2	LOCKERS	34
B00TH-2	FLAM-LIQUID	33
600TH−2	THBLE	33
B00TH-2	FAIKT-AKEA	21
BOOTH-2	F-DOOR	17
B00TH-4	B00TH-6	13
BOOTH-4	P-CLEANING	11
BOOTH-4	P-MIXING	23
BOOTH-4	LOCKERS	22
B00TH-4	FLAM-LIQUID	20
B00TH-4	TABLE	21
B00TH-4	FAINT-AREA	17
₽00TH-4	P-000R	20
600TH-6	P-CLEANING	21
₽001H-6	F-MIXING	29
BOOTH-6	LOCKERS	15
B00TH-6	FLAM-LIQUID	9
B00TH-6	TABLE	11
6-HT003	PAINT-AREA	18
· BOOTH-6	P-DOGR	38.
P-CLEANING	P-MIXING	24
P-CLEANING	LOCKERS	29
F-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
F-CLEANING	PAINT-AREA	16
F-CLEANING	F-000R	23
F-MIXING	LOCKERS	20
P-MIXING	FLAM-LIQUID	32
		29
F-MIXING	TABLE	27

F-MIXING .	PAINT-AREA	13
P-MIXING	P-DOOR	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9
LOCKERS	PAINT-AREA	17
LOCKERS	P-DOOR	43
FLAM-LIQUID	TABLE	7
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	Paint-Area	17
TABLE	P-DOOR	45
PAINT-AREA	P-DOOR	27

!!	VACUUK !	! FOWER
!		!
: CURTAIN-1	(X)	11
CONTRACT	177	!!
		11
BLASTING		!!
!		B-D00
!		!!
!		ijį
CURTAIN-2		11
!		- !!
!!	RECOVERY-AREA	\! !-
 	Blaster	

Name	Locatio	n	T7\zs17\vbo8

WORKPLACES:			
BLASTING	0,5	50,14	
BLASTER	30,3	15,2	
VACUUM	29,17	12,2	
RECOVERY-AREA	30,5	15,2	
POWER	46,17	612	
CURTAIN-1	25,12	0,7	
B-1100R	50,6	1,11	
SHAKER-1	41,0	3,2	•
SHAKER-2	31,0	3,2	
CURTAIN-2	25,5	0,7	
PAINT-AREA	0,20	50,1	
LOCKER-AREA	1,21	10,1	
TOOLS:			
PLIERS	OP		
WRENCH	OP		
RAG	OP		
SCREWDRIVER	OP		

OBJECTS:		
HELMET	BLASTING	
STRAF	BLASTING	FRAG
CAPE	BLASTING	
WOODEN-WEDGE	BLASTING	
R-N-SWITCH	Blasting	
BLAST-HOSE	BLASTING	
ROBCAT	Blasting	
VACUUM-HOSE	BLASTING	
GRIT	BLASTING	
GLOVE	BLASTING	#6.4B
LEVER	BLASTING	FRAG
SWITCH	BLASTING	FRAG
PLASTIC	BLASTING	FRAG
CLUTCH-PEDAL	BLASTING	FRAG
NOTTUR	BLASTER	FRAG
AIRHOSE	RECOVERY-AREA	
SHOVEL	RECOVERY-AREA	
WALLRACK	RECOVERY-AREA	
POWER-SWEEPER	B-D00R	
BROOM	B-000R	•
LOCKER	LOCKER-AREA	
TAPE	LOCKER-AREA	FRAG
LINER	LOCKER-AREA	
EARPLUGS	LOCKER-AREA	
ZIPPER	LOCKER-AREA	
BOX	LOCKER-AREA	
COVERALLS	LOCKER-AREA	
HARDHAT	LOCKER-AREA	
EQUIFMENT:		
TRACTOR-SWEEPER	BLASTING	
OFERATORS:		40:15 B
OP	BLASTING	40113 6
5	To	Sters
From		
		10
BLASTING	BLASTER	19 19
BLASTING	VACUUM	17 22
BLASTING	RECOVERY-AREA	52 77
BLASTING	POWER	25 13
BLASTING	CURTAIN-1	13 22
BLASTING	B-DOOR	46 ·
BLASTING	SHAKER-1	40 .

	CHARGE A	F
ELASTING .	SHAKER-2	53
BLASTING	CURTAIN-2	13
BLASTING	PAINT-AREA	50
BLASTING -	LOCKER-AREA	75
Blaster	VACUUM	26
BLASTER	RECOVERY-AREA	7
BLASTER	POWER	29
BLASTER	CURTAIN-1	26
BLASTER	B-DOOR	19
BLASTER	SHAKER-1	30
BLASTER	SHAKER-2	36
BLASTER	CURTAIN-2	14
	PAINT-AREA	75
RLASTER		
BLASTER	. LOCKER-AREA	100
VACUUM	RECOVERY-AREA	24
VACUUM	POWER.	11
VACUUM	CURTAIN-1	17
VACUUM	B-DOOR	17
VACUUN	SHAKER-1	45
VACUUN	SHAKER-2	53
VACUUN	CURTAIN-2	25
VACUUM	PAINT-AREA	40
VACUUM	LOCKER-AREA	75
RECOVERY-AREA	POWER .	28
RECOVERY-AREA	CURTAIN-1	. 25
RECOVERY-AREA	B-DOOR	18
RECOVERY-AREA	SHAKER-1	32
RECOVERY-AREA	SHAKER-2	40
	CURTAIN-2	14
RECOVERY-AREA		65 65
RECOVERY-AREA	PAINT-AREA	
RECOVERY-AREA	LOCKER-AREA	75
POWER	CURTAIN-1	26
POWER	B-000R	1ó
POWER	SHAKER-1	46
POWER	SHAKER-2	54
POWER	CURTAIN-2	28
POWER	PAINT-AREA	30
POWER	LOCKER-AREA	50.
CURTAIN-1	B-DOCR	26
CURTAIN-1	SHAKER-1	48
CURTAIN-1	SHAKER-2	56
CURTAIN-1	CURTAIN-2	26
CURTAIN-1	PAINT-AREA	63
CURTAIN-1	LOCKER-AREA	75
R-DOOR	SHAKER-1	75 31
8-100R	SHAKER-2	37
•		-
B-DOOR	CURTAIN-2	. 26

B-000R	PAINT-AREA	50
B-DOOR	LOCKER-AREA	70
SHAKER-1	SHAKER-2	11
SHAKER-1	CURTAIN-2	43
SHAKER-1	PAINT-AREA	76
SHAKER-1	LOCKER-AREA	125
SHAKER-2	CURTAIN-2	51
SHAKER-2	PAINT-AREA	10á
SHAKER-2	LOCKER-AREA	134
CURTAIN-2	PAINT-AREA	70
CURTAIN-2	LOCKER-AREA	30
PAINT-AREA	LOCKER-AREA	25

	!! VACU	IUK !	!FOWER!
.	i		11
	CURTAIN-1	(X)	11
	!		!!
	<u>!</u>		!!
	BLASTING		!!
	· !		00 1 -2
	į		!!
	!		!!
	CURTAIN-2		11
	i		!!
! 	! ! RECOV	ERY-ARE	A! !-
	i Bi	.ASTER	į

Bods/Fras/FT Name Location WORKFLACES: 0,5 50,14 BLASTING 30,3 15,2 BLASTER VACUUM 29,17 -12,2 RECOVERY-AREA 30,5 15,2

46,17

25,12

50,6

41,0

31,0

25,5

0,20

1,21

ó,2

0,7

1,11

3,2

3,2

0,7

50,1

10,1

TOOLS:	
PLIERS	GP
WRENCH	OP
RAG	OF
SCREWNRIVER	90

FOWER CURTAIN-1

B-DOOR

SHAKER-1

SHAKER-2

CURTAIN-2

PAINT-AREA

LOCKER-AREA

OBJECTS:		
HELMET	.BLASTING	
STRAP	BLASTING	FRAG
CAPE	BLASTING	
WOODEN-WEDGE	BLASTING	
B-N-SWITCH	BLASTING	
BLAST-HOSE	BLASTING	
	BLASTING	
BOBCAT	BLASTING	
VACUUK-HOSE	BLASTING	
GRIT		FRAG
GLOVE	BLASTING	FRAG
LEVER	BLASTING	FRAG
SWITCH ·	BLASTING	FRAG
FLASTIC	BLASTING	
CLUTCH-PEDAL	BLASTING	FRAG
י אסדדטם	BLASTER	FRAG.
AIRHOSE	RECOVERY-AREA	
SHOVEL	RECOVERY-AREA	
WALLRACK	RECOVERY-AREA	
POWER-SWEEPER	B-DOOR	
BROOM	B-000R	
LOCKER	LOCKER-AREA	
TAPE	LOCKER-AREA	FRAG
LINER	LOCKER-AREA	
EARPLUGS	LOCKER-AREA	
	LOCKER-AREA	
ZIPPER	LOCKER-AREA	•
BOX	LOCKER-AREA	
COVERALLS	LOCKER-AREA	
HARDHAT	LUCKER-HREH	
EQUIPMENT:		
TRACTOR-SWEEFER	BLASTING	
THIS IS NOW SWEET IN		
OPERATORS:		
OP	BLASTING	40,15 B
-	To	Steps
From	10	
BLASTING	BLASTER	. 19
BLASTING	MUUSAV	17
BLASTING	RECOVERY-AREA	22
BLASTING	POWER	25
BLASTING	CURTAIN-1	13
BLASTING	B-DOOR	22
BLASTING	SHAKER-1	46
DEMO I TITO	22	

BLASTING .	SHAKER-2	53
BLASTING	CURTAIN-2	13
BLASTING ·	PAINT-AREA	50
BLASTING	LOCKER-AREA	75
RLASTER	VACUUM	26
BLASTER	RECOVERY-AREA	9
BLASTER -	POWER	27
BLASTER	CURTAIN-1	26
BLASTER	R-DOOR	17
BLASTER	SHAKER-1	30
BLASTER	SHAKER-2	36
BLASTER	CURTAIN-2	14
BLASTER	PAINT-AREA	73
BLASTER	LOCKER-AREA	100
VACUUM	RECOVERY-AREA	24
VACUUM	POWER	11
VACUUM	CURTAIN-1	17
VACUUM	B-000R	17
VACUUM	SHAKER-1	43
VACUUM	SHAKER-2	53
KUUDAV	CURTAIN-2	25
	PAINT-AREA	40
VACUUM		
VACUUM	LOCKER-AREA	75 22
RECOVERY-AREA	POWER	28
RECOVERY-AREA	CURTAIN-1	25
RECOVERY-AREA	B-DGOR	18
RECOVERY-AREA	SHAKER-1	32
RECOVERY-AREA	SHAKER-2	40
RECOVERY-AREA	CURTAIN-2	14
RECOVERY-AREA	PAINT-AREA	6 5
RECOVERY-AREA	LOCKER-AREA	75
POWER	CURTAIN-1	26
POWER	B-DOOR .	1ó
POWER	SHAKER-1	46
POWER	SHAKER-2	54
POWER	CURTAIN-2	28
POWER	PAINT-AREA	30
POWER	LOCKER-AREA	50.
CURTAIN-1	B-DOCK	26
CURTAIN-1	SHAKER-1	48
CURTAIN-1	SHAKER-2	5á
CURTAIN-1	CURTAIN-2	26
CURTAIN-1	PAINT-AREA	65
CURTAIN-1	LOCKER-AREA	75
B-DOOR	SHAKER-1	31
B-D00R	SHAKER-2	39
B-BOOR	CURTAIN-2	26
		

300G-E	· PAINT-AREA	30
5-000K 5-000R	LOCKER-AREA	70
SHAKER-1	SHAKER-2	11
SHAKER-1 .	CURTAIN-2	43
SHAKER-1	FAINT-AREA	76
SHAKER-1	LOCKER-AREA	125
SHAKER-2	CURTAIN-2	51
SHAKER-2	PAINT-AREA	106
SHAKER-2	LOCKER-AREA	134
CURTAIN-2	PAINT-AREA	70
CURTAIN-2	LOCKER-AREA	60
PAINT-AREA	LOCKER-AREA	25

	!!	VACUUM !	!POWER!
	. !		!!
	CURTAIN-1	(X)	11
	<u> I</u>		! !
	!		!!
	BLASTING		11
	!		001-1
	!		1.1
	!		::
	CURTAIN-2	•	i !
	. ! -		!!
•	!!	RECOVERY-ARE	A! !-
	:	BLASTER	!

Name	Location		Bods/Frag/PT
WORKFLACES: BLASTING BLASTER VACUUM RECOVERY-AREA	0,5 30,3 29,17 30,5	50,14 15,2 12,2 15,2	•
POWER CURTAIN-1 B-DOOR SHAKER-1 SHAKER-2 CURTAIN-2 PAINT-AREA LOCKER-AREA	46,17 25,12 50,6 41,0 31,0 25,5 0,20 1,21	6,2 0,7 1,11 3,2 3,2 0,7 50,1	:
TOOLS: FLIERS WRENCH RAG SCREWDRIVER	0F 0F 0F 0F		

LAYOUTS AND NATERIAL FLOW

OBJECTS:		
HELMET	BLASTING	
STRAP	BLASTING	FRAG
CAPE	BLASTING	
WOODEN-WEDGE	BLASTING	
B-N-SWITCH	BLASTING	
BLAST-HOSE	BLASTING	
BOBCAT	BLASTING	
VACUUM-HOSE	RLASTING	
	BLASTING	
GRIT	BLASTING	FRAG
GLOVE	RLASTING	FRAG
LEVER		FRAG
SWITCH '	BLASTING	FRAG
PLASTIC	BLASTING	
CLUTCH-PEDAL	BLASTING	FRAG
KOTTUA	Blaster	FRAG
GLA63	BLASTER	FRAG .
CABINET	Blaster	
WALLRACK	RECOVERY-AREA	
AIRHOSE	RECOVERY-AREA	
SHOVEL	RECOVERY-AREA	
FOWER-SWEEPER	B-D00K	
BROOM	B-000R	
LINER	LOCKER-AREA	
EARPLUGS	LOCKER-AREA	
ZIPPER	LOCKER-AREA	
BOX		
	LOCKER-AREA	
COVERALLS	LOCKER-AREA	
HARDHAT	LOCKER-AREA	
LOCKER	LOCKER-AREA	FRAG
TAFE	LUCKER-HREH	1 1/1/19
EQUIPMENT:		
TRACTOR-SWEEPER	BLASTING	
OPERATORS:		40,13 8
OP	BLASTING	4V)IJ F
From	Το	Sters
DI ACTINO	BLASTER	17
BLASTING	VACUUM	19
BLASTING	RECOVERY-AREA	22
BLASTING		25
BLASTING	POWER	13
BLASTING	CURTAIN-1	10

LARGUTE AND MATERIAL FLOW

BLASTING	Ã-₽₽₽\$	23
Blasting	SHAKER-1	4:
BLASTING	SHAKER-2	53
BLASTING	CURTAIN-2	13
BLASTING	PAINT-AREA	20
BLASTING	LOCKER-AREA	75
BLASTER	VACUUN	26
BLASTER	RECOVERY-AREA	7
BLASTER	POWER	29
BLASTER	CURTAIN-1	26
BLASTER	R-DOOR	19
BLASTER	SHAKER-1	30
BLASTER	SHAKER-2	36 36
BLASTER	CURTAIN-2	14
		75
BLASTER	PAINT-AREA	
BLASTER	LOCKER-AREA	100
VACUUM	RECOVERY-AREA	24
VACUUN	POWER	11
VACUUX	GURTAIN-1	17
VACUUM	5-DGCR	17
VACUUM	SHAKER-1	45
VACUUM	SHAKER-2	53
VACUUX	CURTAIN-2	25
VACUUM	PAINT-AREA	40
VACUUX	LOCKER-AREA	75
RECOVERY-AREA	POWER	28
RECOVERY-AREA	CURTAIN-1	25
RECOVERY-AREA	B-DOOR	18
RECOVERY-AREA	SHAKER-1	32
RECOVERY-AREA	SHANER-2	40
RECOVERY-AREA	CURTAIN-2	14
RECOVERY-AREA	PAINT-AREA	6 5
RECOVERY-AREA	LOCKER-AREA	75
POWER	CURTAIN-1	75 26
FOWER	B-DOOR	16
POWER		
	SHAKER-1	46
FOWER	SHAKER-2	54
POWER	CURTAIN-2	28.
POWER	PAINT-AREA	30
POWER	LOCKER-AREA	50
CURTAIN-1	B-D00R	26
CURTAIN-1	SHAKER-1	48
CURTAIN-1	SHAKER-2	56
CURTAIN-1	CURTAIN-2	26
CURTAIN-1	PAINT-AREA	á 3
CURTAIN-1	LOCKER-AREA	75
B-DOOR	SHAKER-1	31

LAYOUTS AND MATERIAL FLOW

B-B00K	: SHAKER-2	37
B-DOOR	curtain-2	26
R-DOOR	PAINT-AREA	50
B-DOOR	LOCKER-AREA	70
SHAKER-1	SHAKER-2	11
SHAKER-1	CURTAIN-2	43
SHAKER-1	PAINT-AREA	76
SHAKER-1	LOCKER-AREA	. 125
SHAKER-2	CURTAIN-2	51
SHAKER-2	PAINT-AREA	106
	LOCKER-AREA	134
SHAKER-2	PAINT-AREA	70
CURTAIN-2	LOCKER-AREA	. 80
CURTAIN-2	LOCKER-AREA	25
PAINT-AREA	LOCKEK-HKEH	

LAYOUTS AND MATERIAL FLOW

- 4.2 DEPARTMENT OR COST CENTER LAYOUTS
- 4.3 MATERIAL FLOW

SECTION 5 PROCESS DATA

- 5.1 DERIVATION OF PROCESS TIMES
- 5.2 TECHNICAL PROCESSES
- 5.3 TOOL LIFE

BECTION & MANUAL METHODS

486. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA

PER 1 0FG: 1 27-APR-63

MASK AREA NOT TO BE PAINTED. MULTIPLARY THE NO OF EDGES, BULKHEAD LINES, STIFFENERS, ETC.

- * AVERAGE 4' LENGTH OF TAPE APPLIED
- OF BEGINS AT PAINT-AREA
- 1 MOVE TAPE FROM TABLE TO OF
- 2 GET+MANIPULATE TAPE FROM OF TO OP
- 3 POSITION TAPE FROM OP TO SECTION
- 4 TURN WALK 3 STEPS TAPE AT SECTION AND ALIGN F 3
- 5 PRESS WALK 3 STEPS TAPE AT SECTION F 3
- 6 MANIPULATE TAPE AT SECTION
- 691. (MAKE READY) OPERATOR ON GLOVE AT {PAINT-AREA

PER 1 OFG: 1 13-AFR-83

GLOVES ARE WORN ONLY DURING PAINTING AND CLEANUP OF PAINTING EQUIPMENT

OF BEGINS AT PAINT-AREA

- 1 WALK TO P-CLEANING
- 2 REMOVE GLOVE FROM F-CLEANING TO GF F 2
- 3 MANIPULATE GLOVE AT OP F 2
- 741. (MAKE READY) PLACE HELMET ON HEAD AT BLASTING PER 1 OFG: 1 10-AUG-83
 FRESH AIR SUPPLY USED FOR BLASTING OF BEGINS AT BLASTING
 - 1 GET+HOVE HELMET TO BLASTING WITH 20 STEPS
 - 2 PUSH BUTTON AT BLASTER
 - 3 PUSH BUTTON AT RECOVERY-AREA
 - 4 PLACE HELMET WITH BEND TO BLASTING
 - 5 HOLD+POSITION HELMET TO OP
 - 6 MANIPULATE HELMET AT GP (PUT HELMET ON)
 - 7 FULL CAPE AT OF AND ADJUST PF 2 (6)

MARCAL METHODS

- 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA PER 1 OFG: 1 11-AUG-83
 GET READY FOR BLASTING
 OP BEGINS AT BLASTING
 - 1 OPEN LOCKER AT LOCKER-AREA
 - 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO OF
 - 3 HOLD+MANIPULATE COVERALLS AT OF (PUT ON LEGS) F 2
 - 4 PULL COVERALLS AT OF AND ADJUST
 - 5 HOLD+HANDLE COVERALLS AT OF AND ADJUST (PUT ON ARMS) F 2
 - 6 GET+PULL ZIPPER AT OF
- 743. (MAKE READY) TAPE COVERALLS ON OF AT LOCKER FER 1 OFG: 1 11-AUG-83
 GET READY FOR BLASTING
 OF BEGINS AT LOCKER-AREA
 - 1 GET+MOVE TAPE FROM LOCKER TO OF
 - 2 GET+PULL TAPE WITH BEND AT OF F 2
 - 3 HOLD4FOSITION TAPE FROM OF TO COVERALLS F 2
 - 4 HOLDITURN TAPE AT COVERALLS F 6
 - 5 HOLD+PULL TAPE AT OF F 2
 - 6 PLACE TAPE FROM OF TO LOCKER
- 744. (MAKE READY) GLOVES HARDHAT LINER EARPLUGS FOR OF AT BLASTING FER 1 OFG: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA
 - 1 MOVE GLOVES FROM LOCKER TO OF
 - 2 MOVE HARDHAT FROM LOCKER TO OF
 - 3 MOVE LINER EARPLUGS FROM LOCKER TO OF
 - 4 HOLD+POSITION GLOVES HARDHAT LINER EARPLUGS FROM OF TO BLASTING WITH DOOR PF 2 (5)

MANUAL METHODS

- 743. (MAKE READY) PLACE EAR FLUOS IN EAR AT LOCKER PER 1 OFG: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA
 - 1 PLACE EARPLUGS TO OF
 - 2 OPEN BOX AT LOCKER
 - 3 GET+MANIPULATE EARPLUGS AT OP F 2
 - 4 HOLD+POSITION EARPLUGS FROM-OF TO OF F 2
- 746. (TEAR DOWN) OPERATOR FOR BLASTER CLEAN UP AT BLASTING AREA PER 1 OFG: 1 11-AUG-83

REMOVE GLOVES HELMET AFTER BLASTING AND TURN OFF BLASTER OF BEGINS AT BLASTING

- 1 GETYREMOVE WOODEN-WEDGE FROM B-N-SWITCH TO BLASTING WITH BEND
- 2 GET+REPOSITION GLOVE FROM OF TO BLASTING F 2
- 3 GET+MANIPULATE CAPE HELMET AT OF
- 4 HOLD+REFLACE CAPE HELMET FROM OF TO BLASTING WITH BEND
- 5 PUSH BUTTON AT BLASTER (SHUT OFF BLASTER)
- 747. (CLEANUP) GRIT IN BLASTING BOOTH WITH POWER SWEEPER AT BLASTING AREA PER 1 OFG: 1 11-AUG-63
 - PICKUP GRIT WITH POWER SWEEPER
 - * AD 2ND OPERATOR CLEANUP
 - OF BEGINS AT BLASTING
 - 1 FUSH BUTTON AT VACUUM
 - 2 FUSH BUTTON AT POWER WITH POOR (RAISE B-BOOR)
 - 3 WALK 50 STEPS TO B-DOOR
 - 4 CLIMB FUSH BUTTON AT FOWER-SWEEPER
 - 5 MOVE POWER-SWEEPER TO BLASTING
 - 6 OPERATE FOWER-SWEEPER AT BLASTING PT 120 8 F 14
 - 7 PUSH BUTTON AT POWER-SWEEPER WITH CLIMB
 - 8 FUSH BUTTON AT VACUUM
 - 7 PUSH BUTTON AT RECOVERY-AREA AND RETURN AT PAINT-AREA

MARKAL METHEDS

- 746. (CLEANUP) GRIT IN PLASTING BESTA WITH BRODN + SHOVEL AT PLASTING MEA PER 1 OFO: 1 11-AUG-83 SIMO WHEN USED WITH FOWER-SWEEFER OP BEGINS AT BLASTING
 - 1 GET+MOVE BROOM FROM B-DOOR TO OP
 - 2 HOLD-MANEUVER BROOM AT OF PT 50 3 FF 4 (5)
 - 3 GET+PICKUP WITH BEND BLAST-HOSE FROM BLASTING TO OP F 2
 - 4 HOLDAPOSITION BLAST-HOSE FROM OF TO WALLRACK F 2
 - 5 GET+CRANK BLAST-HOSE 20 REVS AT WALLRACK
 - 6 GET+MOVE WITH BEND HELMET FROM BLASTING TO RECOVERY-AREA
 - 7 GET+CRANK AIRHOSE 20 REVS AT WALLRACK
 - 8 HOLD+POSITION HELMET AIRHOSE TO WALLRACK
 - 9 GET+MANEUVER SHOVEL AT RECOVERY-AREA RF 8 (4)
- 749. (CLEANUP) GRIT IN BLAST BOOTH WITH BOBCAT FRONT END LOADER AT SLAST AREA

PER 1 OF6: 1 11-408-93 SIMO WHEN USED WITH POWER-SWEEPER OF BEGINS AT B-DOOR

- 1 CLIMB PUSH BUTTON AT BORCAT
- 2 OPERATE BOSCAT AT SLASTING AT 15 S F 12
- 3 PUSH BUTTON AT BOBCAT WITH CLIMB
- 750. (CLEANUP) BRIT IN BLASTING BOOTH WITH VACUUM AT BLASTING AREA FER 1 OFG: 1 11-AUG-83
 USED WITH POWER SWEEPER
 OF BEGINS AT RECOVERY-AREA
 - 1 GET+PLACE WITH BEND VACUUM-HOSE FROM BLASTING TO GRIT
 - 2 GETHHOLD WITH BEND VACUUM-HOSE TO GRIT F 12
 - 3 GET+PICKUP WITH BEND VACUUM-HOSE TO GRIT (AFTER BEDCAT CLEANUF)

MARCAL METHODS

- 751. (CLEAN UP) BRIT IN BLASTING BOOTH WITH TRAUTCR-BUEEFER AT BLASTING PER 1 0F0: 1 11-AUG-83
 - STARTING AND TURN OFF TRACTOR-SWEEPER
 - * 1 MAN OPERATION
 - OF BEGINS AT BLASTINS
 - 1 WITH 50 STEPS GET+MANEUVER PLASTIC AT TRACTOR-SWEEFER AND ADJUST
 - 2 PUSH BUTTON WITH CLIMB AT TRACTOR-SWEEPER
 - 3 PUSH BUTTON AT TRACTOR-SWEEPER WITH CLIMB
 - 4 GET+POSITION PLASTIC FROM BLASTING TO TRACTOR-SWEEPER
 - 5 MANIPULATE PLASTIC AT TRACTOR-SWEEFER
- 752. (CLEAN UP) ORIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING AREA PER 1 OFG: 1 11-AUG-83
 - MUST USE WITH STARTING TRACTOR-SWEEPER SUB-OF
 - * MULTIPLY BY NUMBER OF FREQUENCIES
 - * 1 MAN OPERATION
 - OF BEGINS AT BLASTING
 - 1 PUSH SWITCH AT TRACTOR-SWEEPER (ENGAGE SWEEPER)
 - 2 PULL LEVER AT TRACTOR-SWEEFER (LOWER BRUSH)
 - 3 PUSH CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER
 - 4 PULL LEVER AT TRACTOR-SWEEPER (LOW GEAR)
 - 5 PULL CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER PT 30 S
 - 6 PUSH CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER
 - 7 PULL LEVER AT TRACTOR-SWEEPER (REVERSE GEAR)
 - 8 PULL LEVER AT TRACTOR-SWEEPER (RAISE BRUSH)
 - 9 PULL CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER PT 20 B

MARRIAL DETROTE

753. (CLEAN UF) GRIT IN BLASTING EGGTH WITH DIBOAT FRONT EMP LOADER OF BLASTING AREA

PER 1 0F6; 1 11-409-83

STARTING BOBCAT AND TURN OFF

1 MAN OFERATION

OP BEGINS AT BLASTING

- 1 WITH 50 STEPS GET+MANEUVER PLASTIC AT BOBCAT AND ADJUST
- 2 PULL LEVER WITH CLIMB AT BOBCAT
- 3 PULL LEVER AT BOBCAT WITH CLIMB
- 4 GET+POSITION PLASTIC FROM BLASTING TO BOBCAT
- 5 MANIPULATE PLASTIC AT BOBCAT
- 754. (CLEAN UP) ORIT IN BLASTING BOOTH WITH BOBCAT AT BLASTING AREA PER 1 OFG: 1 11-AUG-83

USE WITH STARTING BOBCAT SUB-OF

- # AD PROCESS TIME
- % 1 MAN OPERATION
- OF BEGINS AT BLASTING
- 1 OPERATE BORCAT AT BLASTIMS PT 120 S PF 15 (5)
- 755. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AREA PER 1 OFG: 1 10-AUG-83
 - * PARTIAL CLEAN-UP FCP MATERIAL HANDLING
 - OP BEGINS AT BLASTING
 - 1 PUSH BUTTON AT POWER (RAISE 900R)
 - 2 MOVE BROOM TO OF
 - 3 HOLD+PLACE BROOM FROM OF TO B-DOGR
 - 4 HOLD+MANEUVER BROOM AT E-DCOR FT 120 3 FF 2 (5)
 - 5 PLACE BROOM FROM 6-DOOR TO POWER AND ASIDE BROOM

CONTROL OFFICE

- 706. (CLEAN UP) GRIT IN BLASTING POOTH WITH PROZEM AT BLASTING MASA PER 1 050: 1 10-AUG-83
 - # USE FOR TRACTOR-SWEEPER SUB-UP
 - * 2 MAN OPERATION
 - OF BEGINS AT BLASTING
 - 1 PUSH BUTTON AT POWER (RAISE DOOR)
 - 2 MOVE BROOM TO OF
 - 3 HOLD+FLACE BROOM FROM OF TO B-DOOR
 - 4 HOLDAMANEUVER BROOM AT B-DOOR PT 120 S PF 10 (5)
 - 5 PLACE BROOM FROM B-DOCK TO POWER AND ASIDE BROOM
- 757. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING APEA PER 1 OFG: 1 11-AUG-83
 - * MULTIPLY NO. OF FREGUENCIES
 - * CAN BE 1 OR 2 HAN OPERATION
 - OF BEGINS AT BLASTING
 - 1 GET+MANEUVER FLAST-HOSE AT BLASTING
 - 2 WITH 10 STEPS HOVE BLAST-HOSE FROM PLASTIMS TO PLASTIMS
 - 3 HOLD+OPERATE BLAST-HOSE AT BLASTING
- 758. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA PER 1 OFG: 1 11-AUG-63
 - * MULTIPLY NO. OF FREQUENCIES
 - * CAN BE 1 OR 2 MAN OPERATION
 - OF BEGINS AT BLASTING
 - 1 GET+MAKEUVER WITH KNEEL BLAST-HOSE AT BLASTING
 - 2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING
 - 3 HOLD+OFERATE BLAST-HOSE AT BLASTING

MANUAL METHODS

- 759. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA PER 1 OFO: 1 11-AUG-83
 - * MULTIPLY NO. OF FREQUENCIES
 - * CAN BE 1 OR 2 MAN OPERATION
 - OF BEGINS AT BLASTING
 - 1 GET+MANEUVER WITH BEND BLAST-HOSE AT BLASTING
 - 2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING
 - 3 HOLD+OPERATE BLAST-HOSE AT BLASTING
- 761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER PER 1 OF6: 1 11-AUG-83
 OP BEGINS AT LOCKER-AREA
 - 1 GET+POSITION LINER TO OP
 - 2 HOLD-MANIPULATE LINER AT OF AND ADJUST PF 4 (4 5 6)
 - 3 PULL STRAP AT OF AND ADJUST

762. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR BLASTING AT BLAST 4REA CHECK GLASS IN HELMET AND REPLACE IF NECESSARY PER 1 OFG: 1 12-AUG-83 * USE FOR BLASTING ONLY * MULTIPLY BY NO. OF OPERATORS

Combined sub-operation elements

- 741. (MAKE READY) PLACE HELMET ON HEAD AT BLASTING
- 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA
- 743. (MAKE READY) TAPE COVERALLS ON OP AT LOCKER
- 744. (MAKE READY) GLOVES HARDHAT LINER EARFLUGS FOR OF AT BLASTING
- 745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER
- 761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER
- 691. (MAKE READY) OPERATOR ON GLOVE AT (PAINT-AREA

HAMBAL HETHORS

743. COMBINED SUB-OF

(CLEAN) UP GRIT IN BLAST BOOTH WITH TENANT SWEEFER AT FLASTING AREA

MAKE SURE SWEEPER IS CLEANED OUT BEFORE USING IN BLAST AREA PER 1 OFG: 1 12-AUG-63

* 2 MAN OPERATION

* 1 MAN IS SIMCED FOR PART OF CLEAN UP

Combined sub-operation elements

- 747. (CLEANUP) GRIT IN BLASTING BOOTH WITH FOWER SWEEPER AT BLASTING AREA
- 748. (CLEANUF) GRIT IN BLASTING BOOTH WITH BROOM + SHOVEL AT BLASTING AREA
- 749. (CLEANUP) GRIT IN BLAST BOOTH WITH BOBCAT FRONT END LOADER AT BLAST AREA
- 750. (CLEANUP) GRIT IN BLASTING BOOTH WITH VACUUM AT BLASTING AREA
- 764. COMBINED SUB-OP

(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWEEPER AT BLAST AREA PER 1 OFG: 1 12-AUG-83
* 2 MAN OPERATION

* SOME PARTS ARE SIMOED

Combined sub-operation elements

- 751. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING
- 752. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING AREA
- 753. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT FRONT END LOADER AT BLASTING AREA
- 754. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT AT BLASTING AREA
- 756. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AREA

MARUAL METHODS

- 760. (CHANGE) GLASS ON (MELMET) FOR BLASTING AT BLAST AREA PER 1 OFG: 1 11-AUG-83 REPLACE WHEN NECESSARY * 1 MAN OPERATION OF BEGINS AT BLASTING
 - 1 OPEN CABINET AT BLASTER
 - 2 GET+MOVE GLASS TAPE AT CABINET TO BLASTING
 - 3 GET+MANIPULATE WITH KNEEL TAPE AT HELMET
 - 4 GET+REMOVE TAPE AT HELMET TO OF F 4
 - 5 GET+REMOVE GLASS AT HELMET TO OP
 - 6 GET+POSITION GLASS AT HELMET TO BLASTING F 3
 - 7 GET+MANIPULATE TAPE AT OF F 12
 - 8 HOLD+PULL TAPE AT OP F 12
 - 9 HOLD+POSITION TAPE AT HELMET TO BLASTING F 12
 - 10 TOSS GLASS FROM BLASTING TO BLASTER (IN WASTE BARREL)
 - 11 PLACE TAPE FROM OF TO BLASTER (IN CABINET)

SECTION 7 STANDARD TIME CALCULATION

7.1 WORK SHEETS, TITLE SHEETS, THELES, CHARTS

BLAST ASSEMBLIES IN BLAST BOOTH

Titlesheet Organization List

Move

761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER

760. (CHANGE) GLASS ON (HELMET) FOR BLASTING AT BLAST AREA REPLACE WHEN NECESSARY

Fresare

- 691. (MAKE READY). OPERATOR ON GLOVE AT CPAINT-AREA GLOVES ARE WORN ONLY DURING PAINTING AND CLEANUP OF PAINTING EQUIP.ENT
- 741. (MAKE READY) PLACE HELHET ON HEAD AT BLASTING FRESH AIR SUPPLY USED FOR BLASTING
- 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA GET READY FOR BLASTING
- 743. (MAKE READY) TAPE COVERALLS ON OF AT LOCKER GET READY FOR BLASTING
- 744. (MAKE READY) GLOVES HARDHAT LINER EARPLUGS FOR OP AT BLASTING
- 745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER
- 746. (TEAR DOWN) OPERATOR FOR BLASTER CLEAN UP AT BLASTING AREA REMOVE GLOVES HELMET AFTER BLASTING AND TURN OFF BLASTER
- 747. (CLEANUP) GRIT IN BLASTING BOOTH WITH POWER SWEEPER AT BLASTING AREA PICKUP GRIT WITH POWER SWEEPER
- 762. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR BLASTING AT BLAST AREA CHECK GLASS IN HELMET AND REPLACE IF NECESSARY

763. COMBINED SUB-OF

(CLEAN) UP GRIT IN BLAST BOOTH WITH TENANT SWEEPER AT BLASTING AREA MAKE SURE SWEEPER IS CLEANED OUT BEFORE USING IN BLAST AREA

764. COMBINED SUB-OP

(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWEEPER AT BLAST AREA

Surface Treat

- 748. (CLEANUP) GRIT IN BLASTING BOOTH WITH BROOM + SHOVEL AT BLASTING AREA SIMO WHEN USED WITH POWER-SWEEPER
- 749. (CLEANUP) GRIT IN BLAST BOOTH WITH BOBCAT FRONT END LOADER AT BLAST AREA SIMO WHEN USED WITH POWER-SWEEPER
- 750. (CLEANUP) GRIT IN BLASTING BOOTH WITH VACUUM AT BLASTING AREA USED WTIH POWER SWEEPER
- 751. (CLEAN UP) ORIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING STARTING AND TURN OFF TRACTOR-SWEEPER
- 752. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING AF MUST USE WITH STARTING TRACTOR-SWEEPER SUB-OF
- 753. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT FRONT END LOADER AT BLASTING AREA STARTING BOBCAT AND TURN OFF
- 754. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT AT BLASTING AREA USE WITH STARTING BOBCAT SUB-OP
- 755. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AREA
- 756. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AREA
- 757. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA
- 756. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA
- 757. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA

7.2 HOU TO CHICULATE TIME STHRURRES

M G E T OPERATION TIME CALCULATION

DETAIL/UNIT/PART	хх ·	REV. LTR/DATE	6/30/83	
PROCESS/OPER CODE	XX	STANDARP CODE	ХХ	· -
PART NAME	SUPPLY DEPT. ISSUE R	:00H		
SHIP CLASS	ARS	HULL	50	
COST CLASS/JOB #	XX	TRADE	BLASTERS	
GROUP (UNIT/ZONE)	XX	WORK AREA	BLAST BOOTH	
SUB-GROUP	XX	WORK ZONE	BLAST BOOTH	
SUB-SUB-GROUP	XX	WORK CENTER	XX	
CREW/MACHINE	XX	ASSET/MACHINE	XX	
ITEM	XX	BUB-ITEX	χ.	
GEN. DRAWING	XX	WORK ORDER	XX	
DET. DRAWING	XX .	SHEET	XX	
WORK PACKAGE	XX	APPLICATOR	DK	
OPER. DESCRIPTION	STRIP BLAST SUPPLY I	EFT. ISSUE ROO	i	
				-
DATE	12-AUG-83	ISSUE ‡	1	-
Step Method Instru	uction			Freq
* USE FOR BL	OPERATOR FOR BLASTIN ASTING ONLY (NO. OF OPERATORS	6 . (762)	4
2 (CHANGE) GLASS	ON (HELMET) FOR BL	ASTING (760)	.13
	ECT) IN BLAST BOOTH O. OF FREQUENCIES	(737)	19

	i în			•
4	(BLAST) (GBJECT) IN BLAST BOOTH	(738)	: -
	. MULTIPLY NO. OF FREQUENCIES			
	# CAN BE 1 OR 2 MAN OFERATION			
3		(739)	13
	* NULTIPLY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
ó	(MAKE READY) FLACE EAR FLUGS IN EAR	(745)	3
7	(MAKE READY) PLACE HELMET ON HEAD	į	741)	3
8	(MAKE READY) OPERATOR ON GLOVE	(671)	3
7	(CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM	(755)	1
•	# PARTIAL CLEAN-UP FOR MATERIAL HANDLING			
10	(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR	SWE (764)	•4
10	EPER			
	TO MAN OPERATION			
	* 2 MAN OPERATION			
	* SOME FARTS ARE SINCED	:	HACH)	•
11	BLASTING	-	MACH)	1
12	BLOW OFF GRIT	_	746)	-
13	(TEAR DOWN) OFERATOR FOR BLASTER CLEAN UP	,	/40/	ن

A S 5 T OFERATION TIME CALCULATION

STEP	Så	FRER	INTERVAL THE	EXTERNAL THE	155 1
1	0.00	0.40		3331.	732
2	0.00	0.13		ć11.	720
3	0.00	19.00		7410.	757
4	0.00	1.20	-	480.	758
5	0.00	18.00		5400.	759
ó	0.00	3.00		1370.	743
7	0.00	3.00		5280.	741
8 7	0.00	3.00		1920.	671
9	0.00	1.00		8680.	755
10	0.00	0.40		33920,	764
11 MACHINE OPERATION	0.00	1.00		202374.	
12 MACHINE OPERATION	0.00	1.00		17000.	
13	0.00	3.00		2760.	7 4 6
S. ANDRAL SPANETS STATE					
MANUAL TIME(TMU)			Ĉ.	75553.	
ACTUAL PROCESS TIME(TMU)			ů.	219374.	•
FACTORED PROCESS TIME(TMU)			٥.		
TOTAL INTERNAL TIME(TMU)			0.		

TITLE SHEET USED IN SETTING STANDARD: 0

N 0 S T OFERATION TIME DALUGLATION

Ensineersd Operation Time Calculation

Tape of Work		ementai Time	Ferc Allow		Allowan Time	 ce	Standard Time
EXTERNAL MANUAL		0.734			0.000		0.734
ASSIGNED INTERNAL	(0.000)	()	(0.000)	(0.000)
PROCESS TIME		2.174			0.000		2,194
STANDARD(HRS./CYCLE	:)	2,728			0.0	00	2.928
PIECES PER CYCLE		1					
STANDARD HOUPS							2.7

W O S T OPERATION TIME CALCULATION

DETAIL/UNIT/PART	XX	REV. LTR/LATE	6/30/63	
PROCESS/OFER CODE	хх .	STANDARD CODE	XX	-
PART NAME	ROPE STOWAGE BIN			_
SHIP CLASS	ARS	HULL	50	
COST CLASS/JOB #	XX	TRADE	BLASTERS	
GROUP (UNIT/ZONE)	XX	WORK AREA	BLAST BOOTH	
SUB-GROUP	XX	WORK ZONE	BLAST BOOTH	
SUB-SUB-GROUP	XX	WORK CENTER	XX	
CREW/MACHINE	х.	ASSET/MACHINE	XX	
ITEM	XX	SUB-ITEX	XX	
GEN. DRAWING	XX	WORK ORDER	XX	
DET. DRAWING	XX	Taane	XX	
WORK PACKAGE	XX	APPLICATOR	DK	
OPER. DESCRIPTION	STRIP BLAST ROFE STO	WAGE BIN		
DATE	12-AUG-83	ISSUE ‡	1	. -
Step Method Instr	uction			Frea
* USE FOR BL		3	(762)	.1
2 (CHANGE) GLAS	Y NO. OF OPERATORS B ON (HELMET) FOR BLA	ASTING (760)	.02
* MULTIPLY N	ECT) IN BLAST BOOTH O. OF FREQUENCIES	•	(757)	3
	R 2 MAN OPERATION ECT) IN BLAST BOOTH	•	(758)	•2

* MULTIPLY NO. OF FREMUENCIES			
* CAN BE 1 OR 2 MAN OFERATION			
(BLAST) (OBJECT) IN BLAST BOOTH	(7391	3
* MULTIPLY NO. OF FREQUENCIES			
* CAN BE 1 OR 2 MAN OPERATION			
(MAKE READY) PLACE EAR PLUGS IN EAR	(743)	•5
(MAKE READY) PLACE HELMET ON HEAD	(741)	•=
	í	691)	•3
(CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM	(755)	•1
* PARTIAL CLEAN-UP FOR MATERIAL HANDLING			
(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWE	(764)	.1
,			
# 2 MAN OPERATION			
	(MACH)	1
	(MACH)	1
	(746)	• ઇ
	* CAN BE 1 OR 2 MAN OPERATION (BLAST) (OBJECT) IN BLAST BOOTH * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION (MAKE READY) PLACE EAR PLUGS IN EAR (MAKE READY) PLACE HELMET ON HEAD (MAKE READY) OPERATOR ON GLOVE (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM * PARTIAL CLEAN-UP FOR MATERIAL HANDLING	* CAN BE 1 OR 2 MAN OFERATION (BLAST) (OBJECT) IN BLAST BOOTH * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION (MAKE READY) PLACE EAR PLUGS IN EAR (MAKE READY) PLACE HELMET ON HEAD (MAKE READY) OPERATOR ON GLOVE (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM * PARTIAL CLEAN-UP FOR MATERIAL HANDLING (CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWE(EPER * 2 MAN OPERATION * SOME PARTS ARE SIMOED BLASTING BLOW OFF GRIT	* CAN BE 1 OR 2 MAN OFERATION (BLAST) (OBJECT) IN BLAST BOOTH (TJF) * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION (MAKE READY) PLACE EAR PLUGS IN EAR (TAS) (MAKE READY) PLACE HELMET ON HEAD (TA1) (MAKE READY) OPERATOR ON GLOVE (GF1) (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM (TS5) * PARTIAL CLEAN-UP FOR MATERIAL HANDLING (CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWE(TA4) EPER * 2 MAN OPERATION * SOME PARTS ARE SIMOED BLASTING (MACH) BLOW OFF GRIT

H O S T GERATION TIME CALCULATION

STEP	SA	FREQ	INTERNAL TKU	EXTERNAL Thu	LOC }
4	0.00	0.10		333,	762
2	0.00	0.02	•	74.	7á0
2 3	0.00	3.00		1170.	757
4	0.00	0.20		80.	758
5	0.00	3.00		700.	739
6	0.00	0.50		265.	745
7	0.00	0.50		380.	741
8	0.00	0.50		320.	671
7	0.00	0.14	•	1215.	755
10	0.00	0.10		6780.	764
11 MACHINE OPERATION	0.00	1.00		35724.	
12 MACHINE OPERATION	0.00	1.00		3000.	
13	0.00	0.60		552.	746
VANDAL ##VP/#WILL				886724	
MANUAL TINE(TMU)			0.	000/14	
ACTUAL PROCESS TIME(TMU)			0.	253098.	
FACTORED PROCESS TIME(TMU)			0.		
TOTAL INTERNAL TIME(TMU)			0.		

TITLE SHEET USED IN SETTING STANDARD: 0

M O S T OPERATION TIME CALCULATION

Ensineered Operation Time Calculation

Type of Work		emental Time	ferc Allow		Allowan Time	ce 	Standard Time
EXTERNAL MANUAL	*	0.153			0.000		0.153
ASSIGNED INTERNAL	(0.000)	()	(0.000)	(0.000)
PROCESS TIME		0.387			0.000		0.387
STANDARD(HRS./CYCLE)	0.540	•		0.0	00	0.540
PIECES PER CYCLE		i					
STANDARD HOURS							0.5

M O S T OFERATION TIME CALCULATION

******************************	200	REV. LTR/BATE	17 7 0757	
DETAIL/UNIT/PART	AAA			
PROCESS/OPER CODE	XX	STANDARD CODE	XX	
PART NAME	SUPPLY DEPT. OFFICE			
SHIF CLASS	ARS	HULL	50	
COST CLASS/JOR #	XX	TRADE	BLASTERS	
GROUP (UNIT/ZONE)		WORK AREA	BLAST BLDG	
SUB-GROUP	XX	WORK ZONE	BLAST BLDG	
SUB-SUB-GROUP	XX .	WORK CENTER	XX	
CREW/MACHINE	XX	ASSET/NACHINE	XX	
ITEM	XX	SUB-ITEN	ХХ	
GEN. DRAWING	XX	WORK ORDER	XX	
DET. DRAWING	XX	SHEET	XX	
WORK PACKAGE	XX	APPLICATOR	DK	
OPER. DESCRIPTION	STRIP BLAST SUPPLY D	EPT. OFFICE		-
DATE		ISSUE ‡	1	
Step Method Instr	uction			Free
* USE FOR BL	OPERATOR FOR BLASTIN ASTING ONLY Y NO. OF OPERATORS	G	(762)	•2
	S ON (HELMET) FOR BL	.ASTING	(760)	1
3 (BLAST) (OBJ * MULTIPLY N	ECT) IN BLAST BOOTH O. OF FREGUENCIES R 2 MAN OPERATION	((757)	10
	ECT) IN BLAST BOOTH		(758)	•63

	* MULTIPLY NO. OF FREPUENCIES			
	w SAN BE 1 OR 2 MAN OPERATION			
3	(BLAST) (GBUECT) IN BLAST BOOTH	•	759)	?
	* MULTIPLY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
é	(MAKE READY) PLACE EAR PLUGS IN EAR	į	745)	1.3
7	(MAKE READY) FLACE HELMET ON HEAD	•	741)	1.3
8	(MAKE READY) OPERATOR ON GLOVE	(691)	1.5
9	(CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM	(755)	+43
′	* PARTIAL CLEAN-UP FOR MATERIAL HANDLING			
10	(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR S	WE(764)	.21
10	EPER			
	EFER			
	* 2 MAN OPERATION			
	* SOME PARTS ARE SIMOED	1	MACH)	4
11	BLASTING	•		
12	BLOW OFF GRIT	(MACH)	1
: 3	THE PARTY OF TAX ASSESSED OF TAXING	(746)	1.7

W 0 8 T OFERATION TIME CALCULATION

STEP	SA	FREQ	INTERNAL THU	ERTERNAL Thu	100 1
1	0.00	0,20		1656.	732
2		0.10		470.	
3	0.00	10.00		3900.	757
4	0.00	0.63		252.	753
5	0.00	9.00		2700.	759
ó	0.00	1.50		795.	745
7	0.00	1.50		2640.	741
	0.00	1.50		960.	671
9	0.00	0.42		3646∙	755
10	0.00	0.21		18858.	764
	0.00	1.00		107138.	
	0.00	1.00		7000.	
13	0.00	1.70		1564.	746
MANUAL TINE(TMU)			G.	126123.	
ACTUAL PROCESS TIME(TMU)			0.	374286.	
FACTORED PROCESS TIME(TMU)		•	0.		
TOTAL INTERNAL TIME(TMU)			0.		

TITLE SHEET USED IN SETTING STANDARD: 0 '

M O S T OPERATION TIME CALCULATION

Ensineered Operation Time Calculation

Type of Work		emental Time	Ferc Allow		Allowance Time	Standard Time	
EXTERNAL MANUAL		0.375			0.000	0.375	
ASSIGNED INTERNAL	(0.000)	()	(0.000) (0.000)	
PROCESS TIME		1.162			0.000	1.162	
STANDARD(HRS./CYCLE)	1.536			0.000	1.536	
PIECES PER CYCLE		i				,	
STANDARD HOURS						1.5	

SECTION 8 DATA SYNTHESIS AND BACK-UP

8.1 BUNYARY

486. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA

PER 1 0F8: 1 27-AFR-63

MASK AREA NOT TO BE PAINTED. MULTIPLY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED OF BEGINS AT PAINT-AREA

TOTAL TMU 1920.

691. (MAKE READY) OPERATOR ON GLOVE AT (PAINT-AREA PER 1 OFG: 1 13-APR-83 GLOVES ARE WORN ONLY DURING PAINTING AND CLEANUP OF PAINTING EQUIPMENT OP BEGINS AT PAINT-AREA

TOTAL TMU 640.

741. (MAKE READY) PLACE HELMET ON HEAD AT BLASTING PER 1 OFG: 1 10-AUG-83 FRESH AIR SUPPLY USED FOR BLASTING OP BEGINS AT BLASTING

TOTAL TMU . 1760.

742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA FER 1 OFG: 1 11-AUG-83
GET READY FOR BLASTING
OP BEGINS AT BLASTING

TOTAL TMU 2070.

743. (MAKE READY) TAPE COVERALLS ON SP AT LOCKER PER 1 0FG: 1 11-AUG-23 GET READY FOR BLASTING OF BEGINS AT LOCKER-AREA

TOTAL IMU

680**.**

744. (MAKE READY) GLOVES HARDHAT LINER EARPLUGS FOR OF AT BLASTING PER 1 0FG: 1 11-AUG-83 OP BEGINS AT LOCKER-AREA

> TOTAL TMU 1810.

745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER PER 1 OFG: 1 11-AUG-83 OP BEGINS AT LOCKER-AREA

TOTAL TMU 530.

746. (TEAR DOWN) OPERATOR FOR BLASTER CLEAN UP AT BLASTING AREA PER 1 OFG: 1 11-AUG-83 REMOVE GLOVES HELMET AFTER BLASTING AND TURN OFF BLASTER OP BEGINS AT BLASTING

TOTAL TMU

920.

747. (CLEANUP) GRIT IN BLASTING BOOTH WITH POWER SWEEPER AT BLASTING AREA PER 1 OFG: 1 11-AUG-83 PICKUP GRIT WITH POWER SWEEPER * AD 2ND OPERATOR CLEANUP OF BEGINS AT BLASTING

TOTAL TMU

51140.

748. (CLEANUP) ORIT IN BLASTING BOOTH WITH BROOM + SHOVEL AT BLASTING AREA PER 1 OFG: 1 11-AUG-33 SING WHEN USED WITH POWER-SWEEPER OP BEGINS AT BLASTING

TOTAL THU 11650.

749. (CLEANUP) GRIT IN BLAST BOOTH WITH BOBCAT FRONT END LOADER AT BLAST AREA

PER 1 OFG: 1 11-AUG-83 SIMO WHEN USED WITH POWER-SWEEPER OP BEGINS AT B-DOOR

TOTAL TMU 6790.

750. (CLEANUP) GRIT IN BLASTING BOOTH WITH VACUUM AT BLASTING AREA PER 1 OFG: 1 11-AUG-63 - USED WTIH POWER SWEEPER OP BEGINS AT RECOVERY-AREA

TOTAL TMU 2750.

751. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING PER 1 OFG: 1 11-AUG-83
STARTING AND TURN OFF TRACTOR-SWEEPER
* 1 MAN OPERATION
OP BEGINS AT BLASTING

TOTAL TMU 1760.

752. (CLEAN UP) ORIT IN BLASTIMG BOOTH WITH TRACTOR-SWEEPER AT BLASTIMG AS FER 1 OFG: 1 11-AUG-63

MUST USE WITH STARTING TRACTOR-SWEEPER SUB-OF

- * MULTIPLY BY NUMBER OF FREQUENCIES
- * 1 MAN OPERATION
- OP BEGINS AT BLASTING

TOTAL TMU 1820.

753. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT FRONT END LOADER AT BLASTING AREA

PER 1 OFG: 1 11-AUG-83
STARTING BOBCAT AND TURN OFF
* 1 MAN OPERATION
OP BEGINS AT BLASTING

TOTAL TMU 1760.

754. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT AT BLASTING AREA PER 1 OFG: 1 11-AUG-83

USE WITH STARTING BOBCAT SUB-OF

- * AD PROCESS TIME
- * 1 MAN OFERATION
- OF BEGINS AT BLASTING

TOTAL TMU 47580.

755. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AREA FER 1 OFG: 1 10-AUG-83

* PARTIAL CLEAN-UP FOR MATERIAL HANDLING
OP BEGINS AT BLASTING

TOTAL TMU 8480.

756. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLASTING AFEA PER 1 0F0: 1 10-AUG-83

* USE FOR TRACTOR-SWEEFER BUS-OF

* 2 MAN OFERATION

OP BEGINS AT BLASTING

TOTAL THU ESOSO.

757. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA

PER 1 OFG: 1 11-AUG-83

* MULTIPLY NO. OF FREQUENCIES

* CAN BE 1 OR 2 MAN OPERATION

OP BEGINS AT BLASTING

TOTAL TMU 390.

758. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA

PER 1 GF6: 1 11-AUG-83

* MULTIPLY NO. OF FREQUENCIES

* CAN BE 1 OR 2 MAN OPERATION

OF BEGINS AT BLASTING

TOTAL THU 400.

759. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AREA

PER 1 OFG: 1 11-AUG-83

* MULTIPLY NO. OF FREQUENCIES

* CAN BE 1 OR 2 MAN OPERATION

OF BEGINS AT BLASTING

TOTAL TMU 300.

761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER PER 1 OFG: 1 11-AUG-S3
OF BEGINS AT LOCKER-AREA

TOTAL THU 840.

742. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR BLASTING AT BLAST AREA CHECK GLASS IN HELMET AND REPLACE IF NECESSARY PER 1 OFG: 1 12-AUG-83

* USE FOR BLASTING ONLY

* MULTIPLY BY NO. OF OPERATORS

TOTAL TMU 6330.0

763. COMBINED SUB-OF

(CLEAN) UP GRIT IN BLAST BOOTH WITH TENANT SWEEPER AT BLASTING AREA

MAKE SURE SWEEPER IS CLEANED OUT BEFORE USING IN BLAST AREA PER 1 0FG: 1 12-AUG-33

2 MAN OPERATION

* 1 MAN IS SIMOED FOR PART OF CLEAN UP

TOTAL THU 72330.0

764. COMBINED SUB-OF

(CLEAN) UP GRIT IN BLAST BOOTH WITH TRACTOR SWEEPER AT BLAST AREA PER 1 0FG: 1 12-AUG-83

* 2 MAN OPERATION

* SOME PARTS ARE SIMOED

TOTAL TMU 87800.0

760. (CHANGE) GLASS ON (HELMET) FOR BLASTING AT BLAST AREA PER 1 OFG: 1 11-AUG-83
REPLACE WHEN NECESSARY

** 1 MAN OPERATION
OP BEGINS AT BLASTING

TOTAL THU 4700.

PAGE 55

3.2 SYNTHEBIS AND ANALYSIS

686÷	TAPE	CHAKE	REABY)	SECTION	FOR	PAIRTINS	WITH	MASKING	TAFE	нŢ	FALLTERS
		AREA									

PER 1 0F8: 1 27-4PR-83

MASK AREA NOT TO BE PAINTED. MULTIFLEBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED

OF BEGINS AT FAINT-AREA

1 MOVE TAPE FROM TAB	LE TO C	F				•		
	432 BC) G1	A32	03	F1	A0	1.00	óóÛ∙
2 GET+MANIPULATE TAP	E FROM	OP TO	OF					
	A1 B0			ΧO	ΙÛ	A1	1.00	150.
3 POSITION TAPE FROM	OP TO	SECT	CN					
	A1 B0			БÔ	f6	ΑÛ	1.00	90.
4 TURN WALK 3 STEPS	TAPE AT	r SECT	TION	AND	ALIG	N F 3		
	A6 B0	G1	МЗ	ΧO	110	A0	3.00	á00.
5 PRESS WALK 3 STEPS	TAPE A	AT SEC	HOIT	F;	3			
	A6 B0	G1	MЗ	ΧÛ	ΙĐ	ĤÛ	3.00	3007
6 MANIPULATE TAPE AT	SECTIO	3N						
•	A1 BC	31	M10	ΧO	10	6A	1.00	120.
						TOTAL	TMU	1920.

691. (MAKE READY) OPERATOR ON GLOVE AT CPAINT-AREA

FER 1 OFG: 1 13-AFR-83

GLOVES ARE WORN GNLY DURING PAINTING AND CLEANUP OF FAINTING EQUIPMENT

OF BEGINS AT PAINT-AREA

1	WALK TO P-CLEANIN	G								
		A32	B0	Gô	6A	BO	FO	A0	1.00	320.
2	REMOVE GLOVE FROM	i P-CLi	EANI	NG T	TO OF	F 2				
		A1	BO.	61	A1	BO	F1	A0	2.00	80.
3	MANIPULATE GLOVE	AT OF	F 2							
_					M10	X0	IO	ΑŌ	2.00	240.

TOTAL TMU 640.

741. (MAKE READY) PLACE HELMET ON HEAD AT BLASTING	
PER 1 OFG: 1 10-AUG-63 FRESH AIR SUPPLY USED FOR BLASTING	
OP RESINS AT BLASTING	
OF DESIRE AT DEMOTIVE	
1 GET+MOVE HELMET TO BLASTING WITH 20 STEPS	
A1 B0 G3 A32 B0 F1 A0 1+	00 370.
2 PUSH BUTTON AT BLASTER	00 340.
1102 24 02 112 110 111	00 345.
3 PUSH BUTTON AT RECOVERY-AREA A16 B0 G1 M1 X0 TIO A0 1.	00 180.
4 PLACE HELMET WITH BEND TO BLASTING	,
A42 B6 G1 A1 B0 P3 A0 1.	00 530.
5 HOLD+POSITION HELMET TO OP	
,,, ,,, ,,, ,,,, ,,,,,,,,,,,,,,,,,,,,,	00 70.
6 MANIPULATE HELMET AT OP (PUT HELMET ON)	20 120
. HT TO DI HITO WA IN HE	00 120.
7 PULL CAPE AT OP AND ADJUST PF 2 (6) A1 B0 G1 M1 X0 (I6)A0 (2) 1.	00 150.
HI DO DI HI AO (10)HO (2) D.	. 220
TGTAL TMU	1760.
742. (MAKE, READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA	
PER 1 0F6: 1 11-AU6-83	
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING	
PER 1 0F6: 1 11-AU6-83	
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA	
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 X0 IG A0 1.	00 1350•
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IG AO 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP	
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1.	00 1350. 00 140.
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT OP (PUT ON LEGS) F 2	00 140.
PER 1 OFG: 1 11-AUG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131F0 G1 M3 X0 IC A0 1. 2 GET+FLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 A0 1. 3 HOLD+MANIPULATE COVERALLS AT GP (FUT ON LEGS) F 2 A0 B0 G0 M10 X0 IO A0 2.	00 140.
PER 1 OFG: 1 11-AUG-93 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO OP A1 B6 G3 A1 B0 P3 AO 3 HOLD+MANIPULATE COVERALLS AT OP (PUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ALJUST A1 B0 G1 M1 XO I6 AO	00 140. 00 200. 00 90.
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IO AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (PUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 X0 I6 AO 1. 5 HOLD+HANDLE COVERALLS AT OF AND ADJUST (PUT ON ARMS)	00 140. 00 200. 00 90. F 2
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (FUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 X0 I6 AO 1. 5 HOLD+HANDLE COVERALLS AT GP AND ADJUST (PUT ON ARMS) A0 B0 G0 M6 X0 I6 AO 2.	00 140. 00 200. 00 90. F 2
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (PUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 XO I6 AO 1. 5 HOLD+HANDLE COVERALLS AT GP AND ADJUST (PUT ON ARMS) A0 B0 G0 M6 XO I6 AO 2.	00 140. 00 200. 00 90. F 2 240.
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (FUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 X0 I6 AO 1. 5 HOLD+HANDLE COVERALLS AT GP AND ADJUST (PUT ON ARMS) A0 B0 G0 M6 X0 I6 AO 2.	00 140. 00 200. 00 90. F 2 240.
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING OP BEGINS AT BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IC AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (PUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 XO I6 AO 1. 5 HOLD+HANDLE COVERALLS AT GP AND ADJUST (PUT ON ARMS) A0 B0 G0 M6 XO I6 AO 2.	00 140. 00 200. 00 90. F 2 240.
PER 1 OFG: 1 11-AUG-S3 GET READY FOR BLASTING 1 OPEN LOCKER AT LOCKER-AREA A131BO G1 M3 XO IO AO 1. 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO GP A1 B6 G3 A1 B0 P3 AO 1. 3 HOLD+MANIPULATE COVERALLS AT GP (PUT ON LEGS) F 2 A0 B0 G0 M10 XO IO AO 2. 4 PULL COVERALLS AT OP AND ADJUST A1 B0 G1 M1 XO I6 AO 1. 5 HOLD+HANDLE COVERALLS AT GP AND ADJUST (PUT ON ARMS) A0 B0 G0 M6 XO I6 AO 2. 6 GET+PULL ZIFFER AT OP A1 B0 G3 M1 X0 IO AO 1.	00 140. 00 200. 00 90. F 2 240.

745.	(MAKE READY) TAPE COVERALLS ON OP AT LOCKER
	PER 1 0F0: 1 11-AUG-83
	GET READY FOR BLASTING
	OP BEGINS AT LOCKER-AREA

1	GET+HOVE TAPE FROM	LOCKER	TG ()F					
		A1 B0			60	F1	ΑÛ	1.00	áû∙
2	GETAPULL TAPE WITH	I BEND AT	GF.	F 2					
		A1 B6	63	H1	ΧÛ	ΙÛ	ĤÛ	2.00	220.
3	HOLD+POSITION TAPE								
		AO BO	60	Ai	Βû	Pó	ÁÛ	2.00	140.
4	HOLD+TURN TAPE AT	COVERALL	S F	6					
		AO BO	GO	МЗ	X0	ΙO	ΑO	6.00	180.
5	HOLD+PULL TAPE AT	OF F 2							
		AO BO		M1	ΧO	10	A0	2.00	20.
6	PLACE TAPE FROM OF	TO LOCK	(ER						
		A1 B0	G1	A1	B0	f:3	AO	1.00	خ 0٠

TOTAL THU 680.

744. (MAKE READY) GLOVES HARDHAT LINER EARPLUGS FOR OF AT BLASTING FER 1 OFG: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA

1 MOVE	OLOVES FROM	LOCKE	R TO	OF.						
		A1	B0	G1	A1	30	F1	A0	1.00	40.
2 MOVE	HARDHAT FROM	LOCK	ER T	O OF						•
		A1	B0	G1	A1	B0	P1	A0	1.00	40.
3 MOVE	LINER EARPLL	IGS FR	OM L	OCKE	R TO	OP				
		A1	R0	G1	A1	BO	P1	A0	1.00	40.
4 HOLD-	POSITION GLO	IVES H	ARDH	AT L	INER	EAR	PLUG	S FROM O	P TO BLAS	STING WITH
DOOR	PF 2 (5)									
		A0	BO I	GO 1	A131	(B16)F6	A0 (2)	1.00	1690.

TOTAL TMU 1810.

745.	(MAKE	READY)	PLACE EAR PLUGS IN EAR AT LOCKER
	PER 1	0F8: 1	11-AUG-83
	OF BEG	TH CHIE	LOCKER-AREA

DF	BEGINS	AT :	LOCK	ER-ARE	Á							
í	PLACE	EARP	LUGS									
					1 B	0 61	ĤÍ	03	f3	ĤÛ	1.00	60·
2	OPEN 1	OX A	T LO					٧.٥	T A	4.0	1.00	50.
_	OFT / W					O G1		λθ	10	άÛ	1,00	30.
ప	GET+M	aWTLA	LHIC		-000 1 B			ΧO	IO	ΑO	2,00	280.
Δ	HOLD+	PASTT	TON									
7	HOLD	0011	2011	£17111 E	10 B	0 G0	A1	BO	Pó	A0	2.00	140.
	•											
										TOTAL	IMU	530.
PEF F	R 1 OF	3: 1 GLOV	11-A ES H	UG-83 ELMET						BLASTIM N OFF E		
				DEN-ME							ING WITH B	END
i	GET+R	EMOVE	; woo	ש-אשם י	Ai B	:0 63	Ai	86	F1	ΑÛ	E HTIW DAI	EMD 120.
i		EMOVE	; woo	DEN-WE	A1 B E FRO	0 83 M OF	A1 TO BL	B6 ASTI.	F1 NG F	#0 12	1.00	120.
1 2	GET+R	EMOVE EFOSI	: WOO	DEN-WE	A1 B E FRO A1 B	0 03 M OP 0 03	A1 TO BL A1	B6 ASTI.	F1 NG F	#0 12	1.00 WITH E 1.00	EHD 120. 220.
1 2	GET+R	EMOVE EFOSI	: WOO	DEN-WE GLOVE	A1 B E FRO A1 B HELM	0 G3 M OP 0 G3 ET AT	A1 TO BL A1 OP	B6 ASTI BO	P1 NG F P6	#0 12	1.00	120.
1 2 3	GET+R	EMOVE EFOSI ANIPL	: WOO :TION JLATE	DEN-WE GLOVE CAPE	A1 B E FRO A1 B HELM 41 B	0 63 M OF 0 63 ET AT 0 63	A1 TO BL A1 OF M1(86 ASTI 80 XO	P1 NG F P6 IO	A0 7 2 A0 A0	1.00 2.00 1.00	120. 220.
1 2 3	GET+R	EMOVE EFOSI ANIPL	: WOO :TION JLATE	DEN-WE GLOVE CAPE GAPE H	A1 B E FRO A1 B HELM 41 B ELMET	0 63 M OF 0 63 ET AT 0 63	A1 TO BL A1 OF M10 OP	86 ASTI 80 XO	P1 NG F P6 IO	AO 2 2 AO AO ITIW BNI	1.00 2.00 1.00	120. 220.
1 2 3 4	GET+R	EMOVE EFOSI ANIPL REPLA	: WOO TION ULATE	DEN-WE GLOVE CAPE CAPE H	A1 B E FRO A1 B HELM 41 B ELMET A0 B	0 63 M OF G 63 ET AT O 63 FROM	A1 TO BL A1 OF M10 OP A1	B6 .ASTI B0 X0 X0 TO BL B6 BLAS	P1 NG F F6 IO .ASTI P3 STER	AO AO AO ING WITH AO	1.00 2.00 1.00 H BEND 1.00	120. 220. 140.
1 2 3 4	GET+RI GET+RI GET+M HOLD+	EMOVE EFOSI ANIPL REPLA	: WOO TION ULATE	DEN-WE GLOVE CAPE CAPE H CAPE F CAPE	A1 B E FRO A1 B HELM 41 B ELMET A0 B	0 93 M OF 60 93 ET AT 0 93 FROM 0 90	A1 TO BL A1 OF M1(OP A1 OFF	B6 .ASTI B0 X0 X0 TO BL B6 BLAS	P1 NG F F6 IO .ASTI P3 STER	AO 2 AO AO ING WITH	1.00 2.00 1.00 H BEND	120. 220. 140.
1 2 3 4	GET+RI GET+RI GET+M HOLD+	EMOVE EFOSI ANIPL REPLA	: WOO TION ULATE	DEN-WE GLOVE CAPE CAPE H CAPE F CAPE	A1 B E FRO A1 B HELM 41 B ELMET AO B TER (0 93 M OF 60 93 ET AT 0 93 FROM 0 90	A1 TO BL A1 OF M1(OP A1 OFF	B6 .ASTI B0 X0 X0 TO BL B6 BLAS	P1 NG F F6 IO .ASTI P3 STER	AO AO AO ING WITH AO	1.00 2.00 1.00 H BEND 1.00	120. 220. 140.

747. (CLEANUP) GRIT IN BLASTING BOOTH WITH POWER SWEEPER AT BLASTING AREA PER 1 GFG: 1 11-AUG-83

PICKUP GRIT WITH POWER SWEEPER

* AD 2ND OPERATOR CLEANUP

OF BEGINS AT BLASTING

1 PUSH BUTTON AT VACUUM		
A32 B0 B1 M1 X0 I0 A0	1.00	340.
2 PUSH BUTTON AT POWER WITH DOOR (RAISE B-DOOR)		
A24 B16 G1 M1 X0 IO A0	1.00	420.
3 WALK 50 STEPS TO B-DOOR		
A32 B0 G0 A0 B0 F0 A0	1.00	320.
4 CLIMB PUSH BUTTON AT FOWER-SWEEFER		
A1 B16 G1 M1 X0 I0 A0	1.00	190.
5 MOVE POWER-SWEEPER TO BLASTING		
A1 B0 G1 A42 B0 F1 A0	1.00	450.
6 OPERATE POWER-SWEEPER AT BLASTING PT 120 S F 14		
A1 B0 G1 M6 X330I0 A0	14.00	47320.
7 PUSH BUTTON AT POWER-SWEEPER WITH CLIMB		
A1 B16 G1 M1 X0 I0 A0	1.00	170.
8 PUSH BUTTON AT VACUUM		
A32 B0 G1 M1 X0 I0 A0		340.
9 PUSH BUTTON AT RECOVERY-AREA AND RETURN AT FAINT-		
A42 B0 G1 M1 X0 I0 A113	1.00	1570.

TOTAL TMU 51140.

748. (CLEANUF) GRIT IN BLASTING BOOTH WITH BROCK + SHOVEL AT BLASTI PER 1 OFG: 1 11-AUG-83 SIMO WHEN USED WITH POWER-SWEEPER OF BEGINS AT BLASTING	WB AREA
1 GET+MOVE BROOM FROM B-BOOR TO OP A42 BO G3 A42 BO P1 A0 1.00	880.
2 HOLD+MANEUVER BROOM AT OP PT 60 S PF 4 (5) AO BO GO M10 (X173)IO AO (4) 1.00	7020.
3 GET+PICKUP WITH BEND BLAST-HOSE FROM BLASTING TO OP F 2 A1 B6 G3 A1 B0 F0 A0 2.00	220.
4 HOLD+POSITION BLAST-HOSE FROM OF TO WALLRACK F 2 AO BO GO A42 BO P6 AO 2.00	960.
5 GET+CRANK BLAST-HOSE 20 REVS AT WALLRACK A1 B0 G3 M32 X0 IO A0 1.00	360.
6 GET+MOVE WITH BEND HELMET FROM BLASTING TO RECOVERY-AREA A42 B6 G3 A42 B0 P1 A0 1.00	940.
7 GET+CRANK AIRHGSE 20 REVS AT WALLRACK A1 B0 G3 M32 X0 I0 A0 1.00	360.
8 HOLD+POSITION HELMET AIRHOSE TO WALLRACK AO BO GO A1 BO P6 AO 1.00	70.
9 GET+MANEUVER SHOVEL AT RECOVERY-AREA PF 8 (4) A1 B0 G3 (M10)X0 I0 A0 (8) 1.00	840.
TOTAL THU	11650.
749. (CLEANUP) GRIT IN BLAST BOOTH WITH BOBCAT FRONT END LOADER AT AREA	BLAST
PER 1 OFG: 1 11-AUG-83 SIMO WHEN USED WITH FOWER-SWEEFER OP BEGINS AT B-DOOR	
1 CLIMB PUSH BUTTON AT BOBCAT - A42 B16 B1 M1 X0 IO A0 1.00	600 .
2 OPERATE BOBCAT AT BLASTING PT 15 S F 12 A1 B0 G1 N6 X42 I0 A0 12.00	6000.
3 PUSH BUTTON AT BOBCAT WITH CLIMB A1 B16 G1 M1 X0 IO A0 1.00	190•
TOTAL TMU	6790.

750. (CLEANUP) GRIT IN BLASTING BOOTH WITH VACUUM AT BLASTING AREA FER 1 OFG: 1 11-AUG-83
USED WTIH POWER SWEEPER
OP BEGINS AT RECOVERY-AREA

1 GET+PLACE WITH BEND VACUUM-HOSE FROM BLASTING TO GRIT
A42 B6 G3 A1 B0 F3 A0 1.00 550.
2 GET+HOLD WITH BEND VACUUM-HOSE TO GRIT F 12.
A1 B6 G3 A1 B0 F0 A0 12.00 1320.
3 GET+PICKUP WITH BEND VACUUM-HOSE TO GRIT (AFTER BOBCAT CLEANUP) F
8
A1 B6 G3 A1 B0 F0 A0 8.00 880.

TOTAL THU 2750.

751. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING PER 1 OFG: 1 11-AUG-83
STARTING AND TURN OFF TRACTOR-SWEEPER
* 1 MAN OPERATION

OF BEGINS AT BLASTING

TOTAL THU 1760.

752. (CLEAN UP) GRIT IN BLASTING BOOTH WITH TRACTOR-SWEEPER AT BLASTING ARE PER 1 OFG: 1 11-AUG-63

. MUST USE WITH STARTING TRACTOR-SWEEPER SUB-OP

- * MULTIPLY BY NUMBER OF FREQUENCIES
- * 1 MAN OFERATION
- OP BEGINS AT BLASTING

1	PUSH	SWITCH AT TRACTOR-SWEEPER (ENGAGE SWEEPER)	
		A1 B0 G1 M1 X0 I0 A0 1.00	30.
2	FULL	LEVER AT TRACTOR-SWEEPER (LOWER BRUSH)	
		A1 B0 B1 M1 X0 I0 A0 1.00	30.
3	PUSH	CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER	
		A1 B0 G1 M1 X0 I0 A0 1.00	30.
4	PULL	LEVER AT TRACTOR-SWEEPER (LOW GEAR)	
		A1 RO G1 M1 XO IO AO 1.00	30.
5	PULL	CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER PT 30 S	
		A1 B0 G1 M1 X81 I0 A0 1.00	840.
6	PUSH	CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER	
		A1 B0 G1 M1 X0 I0 A0 1.00	30.
7	PULL	LEVER AT TRACTOR-SWEEPER (REVERSE GEAR)	
		A1 B0 G1 M1 X0 I0 A0 1.00	30.
8	PULL	LEVER AT TRACTOR-SWEEPER (RAISE BRUSH)	
		A1 B0 G1 M1 X0 I0 A0 1.00	30.
9	FULL	CLUTCH-PEDAL WITH FOOT AT TRACTOR-SWEEPER FT 20 8	
		A1 B0 G1 M1 X54 I0 A0 1.00	570.

TOTAL THU 1620.

753. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT FRONT END LOADEP AT BLASTING AREA

FER 1 0FG: 1 11-AUG-83

STARTING BOBCAT AND TURN OFF

* 1 MAN OPERATION

OF REGINS AT BLASTING

1 WITH 50 STEPS GET+MANEUVER PLASTIC AT BOBCAT AND ADJUST	
A76 BO G3 M10 XO I6 AO 1.00	1150.
2 PULL LEVER WITH CLIMB AT BOBCAT	
A1 B16 G1 M1 X0 IO A0 1.00	190.
3 PULL LEVER AT BOBCAT WITH CLIMB	
A1 B16 G1 M1 X0 I0 A0 1.00	190.
4 GET+POSITION PLASTIC FROM BLASTING TO BOBCAT	
A1 B0 G3 A1 B0 P6 A0 1.00	110.
5 MANIPULATE PLASTIC AT BOBCAT	
A1 B0 G1 M10 X0 I0 A0 1.00	120.

TOTAL TMU 1740.

754. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BOBCAT AT BLASTING AREA

PER 1 OFG: 1 11-AUG-83
USE WITH STARTING BOBCAT SUB-OP

* AD PROCESS TIME

* 1 MAN OFERATION

OP BEGINS AT BLASTING

1 OPERATE BOBCAT AT BLASTING PT 120 S PF 15 (5)
A1 B0 G1 M6 (X330)IO A0 (15) 1.00 49580.

TOTAL TMU 47580.

FER 1 0F9: 1 10-AUG-83	ING AREA	i
# PARTIAL CLEAN-UP FOR MATERIAL HANDLING		
OP BEGINS AT BLASTING		
1 PUSH BUTTON AT POWER (RAISE DOOR)		
A42 B16 G1 M1 X0 IO A0	1.00	600.
2 MOVE BROOM TO OF A32 BO 61 A32 BO F1 A0	1.00	650.
3 HOLD+PLACE BROOM FROM OF TO B-DOOR		
´ AO BO GO A32 BO P3 AO	1.00	350.
4 HOLD+MANEUVER BROOM AT B-BOOR PT 120 S PF 2 (5) AO BO BO M10 (X330)10 AO (2)	1.00	6700.
5 PLACE BROOM FROM B-DOOR TO POWER AND ASIDE BROOM		773
A1 B0 G1 A32 B0 P3 A0	1.00	370.
. TOTAL T	MI I	0/00
I Ü I AL I	MU	8680.
756. (CLEAN UP) GRIT IN BLASTING BOOTH WITH BROOM AT BLAST	ING AREA	ì
PER 1 OFG: 1 10-AUG-83		
* USE FOR TRACTOR-SWEEPER SUB-OP		
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OP BEGINS AT BLASTING		
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OP BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR) A42 B16 G1 M1 X0 I0 A0	1.00	600 ,
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OP BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR) A42 B16 G1 M1 X0 I0 A0 2 MOVE BROOM TO OP		
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OP BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR) A42 B16 G1 M1 XO IO AO 2 MOVE BROOM TO OP A32 B0 G1 A32 B0 P1 A0 3 HOLD+PLACE BROOM FROM OP TO B-DOOR	1.00	áá 0 •
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OP BEGINS AT BLASTING 1 FUSH BUTTON AT FOWER (RAISE DOOR)	1.00	áá 0 •
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OF BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR)	1.00	660. 350.
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OF BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR)	1.00 1.00 1.00	660. 350. 33100.
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OF BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR)	1.00 1.00 1.00	660. 350. 33100.
* USE FOR TRACTOR-SWEEPER SUB-OP * 2 MAN OPERATION OF BEGINS AT BLASTING 1 PUSH BUTTON AT POWER (RAISE DOOR)	1.00 1.00 1.00 1.00	660. 350. 33100.

757. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AR FER 1 OFG: 1 11-AUG-93 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING 1 GET+MANEUVER BLAST-HOSE AT BLASTING	EA .	
A1 RO G3 M10 XO IO	A0 1.00 140.	
2 WITH 10 STEPS NOVE BLAST-HOSE FROM BLASTING		
416 BO G1 A1 BO F1		
3 HOLD+OPERATE BLAST-HOSE AT BLASTING		
AO RO GO M6 XO IO	A0 1.00 60.	
	TOTAL THU 370.	,
758. (BLAST) (OBJECT) IN BLAST BOOTH AT BLASTING AF PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING	(EA .	
PER 1 OFG: 1 11-AUG-83 * MULTIFLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION		
PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING 1 GET+MANEUVER WITH KNEEL BLAST-HOSE AT BLAST A1 B16 G3 M10 X0 IO	ING	
PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING 1 GET+MANEUVER WITH KNEEL BLAST-HOSE AT BLAST A1 B16 G3 M10 XO IG 2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING	ING AO 1.00 300.	
PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING 1 GET+MANEUVER WITH KNEEL BLAST-HOSE AT BLAST A1 B16 G3 M10 X0 IO 2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING A1 B0 G1 A1 B0 F1	ING AO 1.00 300.	
PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT BLASTING 1 GET+MANEUVER WITH KNEEL BLAST-HOSE AT BLAST A1 B16 G3 M10 XO IG 2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING	ING AO 1.00 300. AO 1.00 40.	

759. (BLAST) (OBJECT) IN BLAST POOTH AT BLASTING AREA PER 1 OFG: 1 11-AUG-83 * MULTIPLY NO. OF FREQUENCIES * CAN BE 1 OR 2 HAN OPERATION OP BEGINS AT BLASTING	
1 GET+MANEUVER WITH BEND BLAST-HOSE AT BLASTING	
A1 B6 G3 M10 X0 I0 A0 1.00	200.
2 MOVE BLAST-HOSE FROM BLASTING TO BLASTING	4.0
A1 B0 G1 A1 B0 P1 A0 1.00	40.
3 HOLD+OPERATE BLAST-HOSE AT BLASTING AO BO GO %6 XO IO AO 1.00	60.
HO DO GO HO AO TO HO	
TOTAL TMU	300.
761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER PER 1 OFG: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA	
1 GET+POSITION LINER TO OF	_
A1 B0 G3 A1 B0 F6 A0 1.G0	110.
2 HOLD+MANIFULATE LINER AT OP AND ADJUST PF 4 (4 5 6) AO BO GO (M10 XO I6)AO (4) 1.00	540.
AO BO GO (MIO XO IS)AO (47 I.OO 3 PULL STRAP AT OP AND ADJUST	2751
A1 B0 G1 M1 X0 I6 A0 1.00	90.
TOTAL TMU	840.

741. COMBINED SUB-OP

(MAKE READY) OFERATOR FOR BLASTING AT BLAST AREA CHECK GLASS IN HELMET AND REPLACE IF NECESSARY FER 1 DFG: 1 12-AUG-83 * USE FOR BLASTING ONLY * MULTIPLY BY NG. OF OPERATORS

TOTAL THU 8330.0

Combined sub-operation elements Freq.	UNT
741. (MAKE READY) PLACE HELMET ON HEAD AT BLASTING	
1.00 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA	1760.0
743. (MAKE READY) TAPE COVERALLS ON OP AT LOCKER	2070.0
1.00 744. (MAKE READY) GLOVES HARDHAT LINER EARPLUGS FOR OP AT BLASTING	680.0 3
745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER	1810.0
761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER	530.0
691. (MAKE READY) OFERATOR ON GLOVE AT CPAINT-AREA	840.0
1.00	640.0
Total TMU	8330.0

743. COMBINED SUB-OP

(CLEAN) UP GRIT IN BLAST BOOTH WITH TENANT SWEEPER AT BLASTING

MAKE SURE SWEEFER IS CLEANED OUT BEFORE USING IN BLAST AREA FER 1 0F0: 1 12-AUG-83

2 MAN OPERATION

Total TMU

* 1 MAN IS SIMOED FOR PART OF CLEAN UP

72330.6 TOTAL TMU

	Combi	ned su	-operation elements	Frea.	_ <u></u>
747.	(CLEANUP)	GRIT I	BLASTING BOOTH WITH POWER SWEEPER AT	BLASTING	AREA
748.	(CLEANUP)	GRIT I	(BLASTING BOOTH WITH BROOK + SHOVEL A		31140.0 8 AREA
749.	(CLEANUF) AREA	GRIT I	N BLAST BOOTH WITH BOBCAT FRONT END LO	2,0,	11630.0 LAST
750.	(CLEANUP)	GRIT I	V BLASTING BOOTH WITH VACUUM AT BLASTI	1.00 NG AREA	6790+(
				1,00	2750.0
	Total	TMU			72330.0

764. COMBINED SUB-OF

(CLEAN) UP ORIT IN PLAST BOOTH WITH TRADTOR SWEEPER AT BLAST AREA PER 1 OFG: 1 12-AUG-53 * 2 NAW OPERATION

* SOME PARTS ARE SINGED

TOTAL THU 89800.0

Combi	ned sub-operation	elements	Frea.	TNU
751. (CLEAN UF)	GRIT IN BLASTING	BOOTH WITH TRACTOR-SWEEPER	AT BLAST	ring
752. (CLEAN UP)	GRIT IN BLASTING	BOOTH WITH TRACTOR-SWEEPER	1.00 AT BLAST	1760.0 TING AREA
	GRIT IN BLASTING NG AREA	BOOTH WITH BOBCAT FRONT EX	1.00 D LOADER	1620.0 AT
754. (CLEAN UP)	ORIT IN BLASTING	BOOTH WITH BOBCAT AT BLAST	1.00 ING AREA	1760.0
756. (CLEAN UP)	ORIT IN BLASTING	BOOTH WITH BROOM AT BLASTI	1.00 NG AREA	47580.0
			1.00	35080.0
Total	TMU			87800.0

760. (CHANGE) GLASS ON (HELMET) FOR BLASTING AT BLAST AREA PER 1 OFG: 1 11-AUG-83 REPLACE WHEN NECESSARY * 1 MAN OPERATION OP BEGINS AT BLASTING

1	OPEN CABINET AT BLASTER	4 00	3 60 .
	A32 B0 G1 M3 X0 I0 A0	1.00	300+
2	GET+MOVE GLASS TAPE AT CABINET TO BLASTING		
	A1 B0 B3 A32 B0 P1 A0	1.00	370.
3	GETHMANIPULATE WITH KNEEL TAPE AT HELMET		
	A1 B16 G3 M10 X0 I0 A0	1.00	300.
4	GET+REMOVE TAPE AT HELMET TO OP F 4		
•	A1 B0 G3 A1 B0 F1 A0	4.00	240.
5	GET+REMOVE GLASS AT HELMET TO OP	·	
•	A1 B0 G3 A1 B0 F1 A0	1.00	50·
,	GET+POSITION GLASS AT HELMET TO BLASTING F 3		
0	A1 B0 G3 A1 B0 P6 A0	3.00	330.
_	111 120 00 111		
i	de manti dente in e in e in e	12.00	1680.
	M1 20 00 1120 111 01	12.00	10001
6	HOLD+PULL TAPE AT OF F 12	40.00	120.
	AO BO GO M1 XO IO AO	12.00	120+
7	HOLD+POSITION TAPE AT HELMET TO BLASTING F 12		240
	AO BO BO A1 BO F6 AO	12.00	840.
10) TOSS GLASS FROM BLASTING TO BLASTER (IN WASTE	BARREL)	
	A1 B0 G1 A32 B0 P0 A0	1.00	340.
11	L PLACE TAPE FROM OP TO BLASTER (IN CABINET)		
	A1 B0 G1 A1 B0 F3 A0	1.00	60.
	2 3.0		

TOTAL TMU

4700+

WORK MANAGEMENT MANUAL

IN-SHOP PAINTING MANUAL

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! ! !	PAINT-ARE	- 4	11	
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		:XING		PAINT-OFFICE
BGOTH-5	BOOTH-3		TH-1	!!!
			POWER	
Name		Locatio	20	Tf\ker7\eboã
110mc				
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I MINIONIC 1	
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B00TH-5	F-DOGR	37
ROOTH-2	BOOTH-4	18
BOOTH-2	BOGTH-6	28
BOOTH-2	P-CLEANING	. 13
B00TH-2	P-MIXING	24
B00TH-2	LOCKERS	34
B00TH-2	FLAM-LIQUID	. 32
200TH-2	THELE	33
B00TH-2	FAINT-AREA	21
B00TH-2	P-DOOR	17
800TH-4	6-HT008	13
BOOTH-4	P-CLEANING	11
BOOTH-4	F-MIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20.
B00TH-4	TABLE	21
#GOTH-4	PAINT-AREA	17
B00TH-4	F-DOGR	20
BOOTH-o	F-CLEANING	21
600TH-6	F-MIXING	29
B00TH-6	LOCKERS	15
800TH-6	FLAM-LIQUID	9
BOOTH-6	TABLE	11
800TH-6	PAINT-AREA	18

	F-000R	38
BOOTH-6	. ===::	24
P-CLEANING	P-MIXING	27
P-CLEANING	LOCKERS	26 26
P-CLEANING	FLAM-LIQUID	
P-CLEANING	TABLE	27
P-CLEANING	Paint-Area	18
P-CLEANING	P-DOOR	23
F-MIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29
P-MIXING	PAINT-AREA	18
• • • • • • • • • • • • • • • • • • • •	P-ROOR	23
P-MIXING	FLAM-LIQUID	14
LOCKERS	· -	7
LOCKERS	TABLE	19
LOCKERS	PAINT-AREA	
LOCKERS	P-DOOR	43
FLAM-LIGUID	TABLE	7
FLAN-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	17
TABLE	P-DGGR	45
PAINT-AREA	P-DOOR	27
LHTMI_HVEN	. ===	

THINNER-STORAGE

BOOTH-6BOOTH-4FOOTH-2- : :
TABLE! !! TOOL-ROOM TABLE! !! !! !! ! !!! !! !! !!! !! !!! LOCKERS PAINT-AREA P-BOOR !!! (X) !! !! !!! (X) !! PAINT-STORAGE !!! (X) !! PAINT-STORAGE !!! !! !! !! !! ! !! !! !! !! ! !! !! !! !! WORKPLACES: PAINT-OFFICE 65,0 6,5 PAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
TABLE! !! TOOL-ROOM TABLE! !! !! !! ! !!! !! !! !!! !! !!! LOCKERS PAINT-AREA P-BOOR !!! (X) !! !! !!! (X) !! PAINT-STORAGE !!! (X) !! PAINT-STORAGE !!! !! !! !! !! ! !! !! !! !! ! !! !! !! !! WORKPLACES: PAINT-OFFICE 65,0 6,5 PAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
TABLE! !! !! !! !! !! !! !! !! !! !! !! !! !
(X)
BOOTH-5BOOTH-3
Name Location Body/Fra≰/PT WORKPLACES: PAINT-OFFICE 65,0 6,5 PAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
Name Location Body/Frag/PT
WORKPLACES: PAINT-OFFICE 65,0 6,5 PAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,3
WORKPLACES: PAINT-OFFICE 65,0 6,5 PAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,3
FAINT-OFFICE 65,0 6,5 FAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
FAINT-OFFICE 65,0 6,5 FAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
FAINT-OFFICE 65,0 6,5 FAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,5
FAINT-STORAGE 65,5 6,5 TOOL-ROOM 66,15 5,3
THINNER-STORAGE 35,21 10,1
FOWER 46.0 4.1
BOOTH-1 35,1 10,1
BOOTH-3 17,1 10,1
ROOTH-5 5,1 10,1
BOOTH-2 35,19 10,1
BOOTH-4 17,19 10,1 :
BOOTH-6 5,19 10,1
P-CLEANING 27,17 8,3
P-MIXING 27,1 8,3
LOCKERS 0,5 2,10
FLAM-LIQUID 0,17 2,2
TABLE 0,15 3,2
PAINT-AREA 5,2 45,16
P-DOOR 50,1 1,18

TOOLS:

STICK GLOVES SCREEN CRESENTWRENCH SCREWDRIVER PLIERS RAG	P-CLEANING P-CLEANING P-CLEANING OP OP OP OP	
OBJECTS:		
FAINT	PAINT-STORAGE	
BUTTON	POWER	Ep.40
LEVER	6-HT004	FRAG FRAG
NOZZLE	B00TH-0	FRHU
WOODEN-BUCK	9-H100g	
2X4-BOARD	B00TH-6	55.40
AIRHOSE	P-CLEANING	FRAG
PAINTCOVER	F-CLEANING	
WINGWUTS	P-CLEANING	FRAG
PAINT-POT	F-CLEANING	
COVER	P-CLEANING	FRAG
PAINTCAN	P-CLEANING	LVAG
FAINTCAN-1	P-CLEANING	
PAINTCAN-2	F-CLEANING	
SCREENTANK	P-CLEANING	
THINNERTANK	P-HIXING	
MIXCAN	P-MIXING	
SPRAY-TIP	P-MIXING	
THINNERPAIL -	P-MIXING	FRAG
SPRAYGUN	P-MIXING	FRAG
SCREW	P-MIXING	LIVUO
FILTER-CAF	P-MIXING	
FILTER	F-MIXING F-MIXING	
INNER-FILTER	* *************************************	
SYPHON-TUBE	P-MIXING	
S-HOLDER	F-MIXING F-HIXING	FRAG
RAG-1	· P-MIXING	, mio
DOLLY	P-MIXING	:
FILL-TUBE	P-MIXING	
AIRMIXER	LOCKERS	
COVERALLS 4'X8'-PANEL	TABLE	
OPERATORS:		
0P	PAINT-AREA	25,8 B

From	To	Stees
PAINT-OFFICE	FAINT-STORAGE	103
PAINT-OFFICE	TOOL-ROOM	233
PAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	POWER	147
PAINT-OFFICE	ROOTH-1	147
PAINT-OFFICE	BOOTH-3	165
PAINT-OFFICE	BOOTH-5	167
PAINT-OFFICE	BOOTH-2	127
PAINT-OFFICE	B00TH-4	153
PAINT-OFFICE	800TH-6	163
PAINT-OFFICE	P-CLEANING	135
· · · · · · · · · · · · · · · · · · ·	P-MIXING	153 153
PAINT-OFFICE	LOCKERS	167
PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE.	rem-cidoid TABLE	167
PAINT-OFFICE		153
PAINT-OFFICE	FAINT-AREA	120
FAINT-OFFICE	P-000R	
PAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
FAINT-STORAGE	POWER	63
FAINT-STORAGE	ROOTH-1	ó1
PAINT-STORAGE	BGOTH-3	63
FAINT-STORAGE	E-HT004	75
PAINT-STORAGE	BGOTH-2	43
FAINT-STORAGE	BOOTH-4	59
PAINT-STORAGE	BOOTH-6	73
FAINT-STORAGE	P-CLEANING	47
FAINT-STORAGE	F-MIXING	55
FAINT-STORAGE	LOCKERS	77
PAINT-STORAGE	FLAH-LIQUID	75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	PAINT-AREA	61
PAINT-STORAGE	F-100R	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233-
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	BOOTH-3	237
TOOL-ROOM	BOOTH-5	255
TOOL-ROOM	B00TH-2	219
TOOL-ROOM	BOOTH-4	231
TOOL-ROOM	6-HT003	250
TOOL-ROOM	P-CLEANING	225
TOGL-ROOM	P-MIXING	233
TOOL-ROOM	LOCKERS	263

		261
T00L-R00H	FLAM-LIQUID	262
TOOL-ROOM	TABLE	233
TOOL-ROOM	PAINT-AREA	236 236
T00L-R00H ·	P-DOOR	_
THINNER-STORAGE	POWER	36
THINNER-STORAGE	BOOTH-1	38 45
THINNER-STORAGE	B00TH-3	4J 55
THINNER-STORAGE	B00TH-5	26
THINNER-STORAGE	BOOTH-2	
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	BOOTH-6	47 77
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING	3 ?
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	PAINT-AREA	36
THINNER-STORAGE	P-DOOR	28
POWER '	1-HT003	14
POWER	B00TH-3	29
POWER	E00TH-5	37
POWER	R00TH-2	27
POWER	B00TH-4	33
POWER	B00TH-6	43
POWER	P-CLEANING	30
POWER	P-MIXING	21
POWER -	LOCKERS	. 44
POWER	FLAX-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	28
FOWER	P-800R	13
F00TH-1	E-HT003	18
BOOTH-1	-Z-HTG04	28
B00TH-1	BOOTH-2	23
BOOTH-1	B00TH-4	29
BOOTH-1	BOOTH-6	33
BOOTH-1	P-CLEANING	25
BOOTH-1	P-MIXING	14.
BOOTH-1	LOCKERS	35
BGOTH-1	FLAM-LIQUID	41
BOOTH-1	TABLE	37
BOOTH-1	FAINT-AREA	21
BOOTH-1	F-100R	17
BOOTH-3 .	BGOTH-5	18
BOOTH-3	FOOTH-2	29
BOOTH-3	BOOTH-4	23
BOTH-3	300TH-6	. 26

		_
B00TH-3	· F-CLEANING	2à
E00TH-3	P-MIXING	11
B00TH-3	LOCKERS	21
R00TH-3	FLAM-LIGUID	29
ROOTH-3	TABLE	26:
BGGTH-3	FAINT-AREA	15
	F-100R	
BOOTH-3		27
R00TH-5	BOOTH-2	33
BGOTH-5	BOOTH-4	26
\$00TH-5	6 ~ HT004	23
BCCTH-5	P-CLEANING	30
BOOTH-5	P-MIXING	20
BOOTH-5	LOCKERS	16
	FLAM-LIQUIR	22
ROOTH-5		
B00TH-5	TABLE	17
800TH - 5	PAINT-AREA	17
200TH-5	P-DOOR	37
B00TH-2	B00TH-4	18
ROOTH-2	6-HT004	28
500TH-2	P-CLEANING	13
BOOTH-2	P-MIXING	24
800TH-2	LOCKERS	34
	FLAM-LIQUID	32 32
B00TH-2	····	
ROOTH-2	TABLE	33
B00TH-2	PAINT-AREA	21
B00TH-2	P-DOOR	17
BOOTH-4	6-HT004	13
B00TH-4	P-CLEANING	11
ROOTH-4	P-MIXING	23
ROOTH-4	LOCKERS	22
ROOTH-4	FLAM-LIGUID	20
800TH-4	TABLE	21
	··· ·	17
B00TH-4	PAINT-AREA	
BOOTH-4	P-1:00R	20
ROOTH-6	P-CLEANING	21
8-HT00ä	P-MIXING	29
BCOTH-6	LOCNERS	15
B00TH-6	FLAM-LIQUID	7.
6-HT003	TABLE	11
BOOTH-6	PAINT-AREA	18
ROOTH-6	P-DOGR	36
F-CLEANING	P-MIXING	24
	LOCKERS	29
P-CLEANING		
F-CLEAKING	FLAM-LIQUID	26
F-CLEANING	TABLE	27
F-CLEANING	PAINT-AREA	13
F-CLEANING	F-DOOR	23

F-MIXING	LOCKERS	26
P-MIXING	FLAM-LIGUID	32
F-MIXING	TABLE	27
P-MIXING	PAINT-AREA.	18
P-MIXING	P-100R	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	7
LOCKERS	FAINT-AREA	19
LOCKERS	P-000R	43
FLAM-LIQUID	TABLE	7
FLAM-LIGUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-BOOR	45
FAINT-AREA	P-DOOR	27

THINNER-STORAGE

		THINNER-S	TURAUE	
	E00TH-4		 	1 :
FLAM-LIQUID				
!				TOOL-ROOM
TABLE!			11	!!
!			11	
!!!			!!	
!!!			!!	
!!!!			!!	
! ! !			!!	
LOCKERS	PAINT-AREA		F-DOOR	
!!!!			ij	!!
! ! !	(X)		!!	! :
!!!!			11	PAINT-STORAGE
!!!			!!	!!
!			!!	
!			11	! !
!	1	į	! !	
			!	PAINT-OFFICE
BOOTH-5 ·	BOOTH-3	:T00a		1 !
			POWER	
Name		Location	n	Body/Frag/FT
	-			~~~~~~~
			•	
WORKFLACES:				
FAINT-OFFICE 、		65,0	6,5	
FAINT-STORAGE		65 , 5	6,5	
TOOL-ROOM		66,15	5,5	
THINNER-STORAGE	•	35,21	10:1	
POWER		46+0	4,1	
BOOTH-1		35,1	10,1	
B00TH-3 -		17,1	10,1	
BOOTH-5		5,1	10,1	
BOOTH-2		35,19	10,1	
B00TH-4		17,19	10,1	•
BOOTH-6		5,19	10,1	
P-CLEANING		27,17	8+3	
P-MIXING		27,1	8,3 2-10	
LOCKERS		0,5 0,17	2,10 2,2	
FLAM-LIQUID		0,17	212. 312	
TABLE DAINT-AREA	•	5,2	312 45116	
PAINT-AREA		50,1	43,10 1,18	
P-DOOR		7017	1110	

TOOLS: STICK STICK GLOVES SCREEN CRESENTWRENCH SCREWDRIVER PLIERS RAG	P-CLEANING P-CLEANING P-CLEANING OP OP OP	
ORJECTS:		
PAINT	PAINT-STORAGE	
NOTTUR	POWER	
LEVER	6-HT008	FRAG
NOZZLE	B00TH-6	FRAG
PAINTCAN-2	P-CLEANING	
SCREENTANK	P-CLEANING	
AIRHOSE	P-CLEANING	FRAG
PAINTCOVER	P-CLEANING	
WINGNUTS	P-CLEAKING	FRAG
PAINT-POT	P-CLEANING	
COVER	P-CLEANING	
PAINTCAN	P-CLEAKING	FRAG
PAINTCAN-1	P-CLEANING	
FILL-TUBE	P-MIXING	
AIRMIXER	F-MIXING	
THINNERTANK	P-MIXING	
HIXCAN	P-MIXING	
SPRAY-TIP	P-MIXING	•
THINNERFAIL	P-MIXING	
SFRAYGUN	F-MIXING	FRAG
SCREW	P-MIXING	FRAG
FILTER-CAP	F-MIXING	
FILTER	F-MIXING	
INNER-FILTER	P-MIXING	
SYPHON-TUBE	F-MIXING	
S-HOLDER	F-MIXING	FRAG
RAG-1	F-MIXING	LVHD
DOLLY	F-MIXING	
COVERALLS	LOCKERS	
0050.7050.		
OPERATORS:	PAINT-AREA	25.8 B
OP	Lutiti _uvru	

To

From

Sters

PAINT-OFFICE	PAINT-STORAGE	103
PAINT-OFFICE	TOOL-ROOM	233
PAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	FOWER	147
PAINT-OFFICE	BOOTH-1	147
PAINT-OFFICE	B00TH-3	165
PAINT-GFFICE	B00TH-5	167
PAINT-OFFICE	B00TH-2	127
PAINT-OFFICE	BOOTH-4	153
PAINT-OFFICE	B00TH-6	163
PAINT-OFFICE	P-CLEANING	135
PAINT-OFFICE	P-MIXING	153
PAINT-OFFICE	LOCKERS	167
PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE	TABLE	167
PAINT-OFFICE	PAINT-AREA	153
PAINT-OFFICE	P-100R	120
PAINT-STORAGE	TOOL-ROON	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	ė3
PAINT-STORAGE	B00TH-1	ói
PAINT-STORAGE	B00TH-3	63
PAINT-STORAGE	ROOTH-5	75
PAINT-STORAGE	BOGTH-2	43
PAINT-STORAGE	B00TH-4	57
PAINT-STORAGE	BOOTH-6	73
PAINT-STORAGE	P-CLEANING	49
PAINT-STORAGE	P-MIXING	55
PAINT-STORAGE	LOCKERS	77
PAINT-STORAGE	FLAM-LIQUID	75
PAINT-STORAGE	TABLE	
PAINT-STORAGE	PAINT-AREA	61
PAINT-STORAGE	P-000R -	3ó
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER .	233
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	1-11004 5-41008	237
TODL-ROOM		255 255
	B00TH-5	-
TOOL-ROOM	B00TH-2	217
TOOL-ROOM	BOOTH-4	-231
TOOL-ROOM	BOOTH-6	250
TOOL-ROOM	P-CLEANING P-MIXING	225
T00L-R00M		233
TOOL-ROOM	LOCKERS	263
TOOL-ROOM	FLAM-LIQUID	261
TOOL-ROOM	TABLE	262
TOOL-ROOM	FAINT-AREA	233

TOOL-ROOM	· P-B00R	230
THINNER-STORAGE	POWER	38
THINNER-STORAGE	800TH=1	38
THINNER-STORAGE	B00TH-3	45
THINNER-STORAGE	B00TH-5	53
THINNER-STORAGE	B00TH-2	26
THINNER-STORAGE -	BOOTH-4	40
THINNER-STORAGE	BOOTH-6	47
THINNER-STORAGE	F-CLEANING	33
THINNER-STORAGE	P-MIXING	39
THINNER-STORAGE	LOCKERS	56
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	PAINT-AREA	36
THINNER-STORAGE	P-DOCR	28
POWER	BOOTH-1	14
POWER	ROOTH-3	29
POWER	B00TH-5	39
FOWER	EOOTH-2	27
POWER	B00TH-4	33
FOWER	800TH-é	43
POWER	P-CLEANING	30
POWER	P-MIXING	21
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	28
POWER	P-B00R	15
ROOTH-1	B00TH-3	18
ROOTH-1	B00TH-5	28
ROOTH-1	2-87008	23
ROOTH-1	BOOTH-4	29
FOOTH-1	6-HT008	33
860TH-1 -	P-CLEANING	25
BCOTH-1	F-MIXING	14
BOOTH-1	LOCKERS	35
BOOTH-1	FLAM-LIQUID	41
B00TH-1	TABLE	37.
B00TH-1	PAINT-AREA	21
BOOTH-1	F-200R	17
B00TH-3	₽90TH-5	18
BOOTH-3	B00TH-2	29
E-HT003	B00TH-4	23
BOOTH-3	BOOTH-6	26
E0TH-3	P-CLEANING	26
BOOTH-3	P-MIXING	11
BOOTH-3	LOCKERS	21

B00TH-3	FLAM-LIQUID	29
B00TH-3	TABLE	2á
E00TH-3	PAINT-AREA	13
B00TH-3	F-DOOR	27
B00TH-5	B00TH-2	33
ROOTH-5	BOOTH-4	26
BOOTH-5	BOOTH-6	23
B00TH-5	P-CLEANING	30
BOOTH-5	P-MIXING	. 20
B00TH-5	LOCKERS	16
BOOTH-5	FLAM-LIQUID	22
B00TH-5	TABLE	17
BOOTH-5	PAINT-AREA	17
B00TH-5 -	P-DOOR	37
B00TH-2	BCOTH-4	18
B00TH-2	BOOTH-6	28
R00TH-2	P-CLEANING	13
B00TH-2	P-KIXING	24
B00TH-2	LOCKERS	34
R00TH-2	FLAM-LIQUID	32
800TH-2	TABLE	33
B00TH-2	PAINT-AREA	21
B00TH-2	P-DOOR	17
BOOTH-4	B00TH-6	13
BOOTH-4	P-CLEANING	11
BOOTH-4	P-HIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
BOOTH-4	- TABLE	21
BOOTH-4	PAINT-AREA	17
B00TH-4	P-DOOR	20
BOOTH-6	P-CLEANING	21
B00TH-6	P-MIXING	29
B00TH-6	LOCKERS	15
BOOTH-6	FLAM-LIQUID	7
ROOTH-6	TABLE	11
B00TH-6	PAINT-AREA	13
8-HT008	P-DOOR	38.
P-CLEANING	P-MIXING	24
P-CLEANING	LOCKERS .	29
P-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	13
P-CLEANING	P-DOOR	23
P-MIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29

P-MIXING	PAINT-AREA	18
F-MIXING	P-DOGR	23
	FLAM-LIQUID	14
LOCKERS LOCKERS	TABLE	7
LOCKERS	PAINT-AREA	. 17
LOCKERS	P-000R	43
FLAM-LIQUID	TABLE	9
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOOR	45
DATHT_ADEA	P-DOOR	27

THINNER-STORAGE

	THINNER-STORAGE				
BOOTH-6	500TH-4	BGG	 TH-2		! !
	P-CLEA			- <u>!</u>	i
!				!!	TOOL-ROOM
TABLE!				!!	Î !
!				i i	
!!!				!!	
				!!	
1 1 1				!!	
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LOCKERS	PAINT-AREA	ł		DOOR	
!!!!	***			H	
!!!!	(X)			!!	i i
1 1 1				!!	PAINT-STORAGE
!!!				!!	! . !
:			•	11 11	! '
:	:	:		: : ! !	: .
:	: F-MIX	: (TNG			: : PAINT-OFFICE
%00TH-5	BOOTH-3			-	
200111 0	200111 0	200	POWE		
	•			•	
Name		Locati	on		Bods/Fras/PT
	-				
WORKPLACES:					
PAINT-OFFICE		65,0	6,5		
FAINT-STORAGE		65,5	6,5		
TOOL-ROOM		66,15	5,5		
THINNER-STORAGE		35,21	10,1		
FOOTH-1		46,0 35,1	4,1 10,1		
BOOTH-3		17,1	10,1		
BOOTH-5		5,1	10,1		
B00TH-2		35,19	10,1		
BCOTH-4		17,19	10,1		
6-HT004		5,19	10,1		:
P-CLEANING		27,17	8,3		
F-MIXING		27,1	8,3		
LOCKERS		0,5	2,10		
FLAM-LIQUID		0,17	2,2		
TABLE		0,15	3,2		
PAINT-AREA		5,2	45,16		
F-D00R		50,1	1,18		

TOOLS: MIXCAN STICK GLOVES RAG SCREEN CRESENTWRENCH SFRAYGUN	P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING LOCKERS	
SCREWDRIVER	0P 0P	
PLIERS	ur	
OBJECTS:		
PAINT	PAINT-STORAGE	
BUTTON	POWER	
NOZZLE	B00TH-6	FRAG
LEVER	600TH-6	· FRAG
PAINTCAN-1	F-CLEANING:	
PAINTCAN-2	P-CLEANING	
SCREENTANK	P-CLEANING	
AIRHOSE	P-CLEANING	FRAG
PAINTCOVER	P-CLEANING ·	
WINGNUTS	P-CLEANING	FRAG
PAINT-POT	P-CLEANING	
COVER	P-CLEANING	
PAINTCAN	P-CLEANING	
0050470504		
OPERATORS:	PAINT-AREA	25,8 B
UF	THEN THE	
	Ta	Sters
From '	10	
		
PAINT-OFFICE	PAINT-STORAGE	103
PAINT-OFFICE	TOOL-ROOM	233
FAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	POWER	149
FAINT-OFFICE	BOOTH-1	147.
PAINT-OFFICE	800TH-3	145
PAINT-OFFICE	B00TH-5	167
PAINT-OFFICE	BOOTH-2	127
FAINT-OFFICE	B00TH-4	153
FAINT-OFFICE	BOOTH-6	163 135
FAINT-OFFICE	P-CLEANING	153
PAINT-OFFICE	P-MIXING	167
PAINT-OFFICE	LOCKERS FLAM-LIQUID	170
PATHI-DEFICE	トレタローにすびロエカ	T/ V

PAINT-OFFICE

FLAM-LIQUID

PAINT-OFFICE	TABLE	167
PAINT-OFFICE	PAINT-AREA	153
PAINT-OFFICE	F-DOOR	170
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FAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	63
FAINT-STORAGE	BOOTH-1	óí
PAINT-STORAGE	B00TH-3 -	63
PAINT-STORAGE	B00TH-5	75
PAINT-STORAGE.	BGOTH-2	43
PAINT-STORAGE	BOOTH-4	. 57
PAINT-STORAGE	BGOTH-6	73
PAINT-STORAGE	P-CLEANING_	49
PAINT-STORAGE	P-HIXING	55
PAINT-STORAGE	LOCKERS	77
PAINT-STORAGE	FLAM-LIQUID	75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	Paint-Area	ś i
FAINT-STORAGE	P-DOOR	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233
TOOL-ROOM	B00TH-1	231
TOOL-ROOM	E-HT008	237
TOOL-ROOM	BOOTH-5	255
TOOL-ROOM	BOOTH-2	219
TOOL-ROOM	BOOTH-4	231
TOOL-ROOM	BOOTH-6 .	250
TOOL-ROOM	P-CLEANING	225
TOOL-ROOM	P-MIXING	233
TOGL-ROOM	LOCKERS	263
TOOL-ROOM	FLAM-LIQUID	261
TOOL-ROOM	TABLE	262
TOOL-ROOM	PAINT-AREA	233
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	POWER	. 38
THINNER-STORAGE	B00TH-1	. 38
THINNER-STORAGE	E00TH-3	45
THINNER-STORAGE	BOOTH-5	55
THINNER-STORAGE	BOOTH-2	26
	* · · · · =	
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	F00TH-6	47
THINNER-STORAGE	F-CLEANING	33
THINNER-STORAGE	P-MIXING	39
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	PAINT-AREA	36
		30

THINNER-STORAGE	P-D00R	28
POWER	B00TH-1	14
POWER	E00TH-3	27
POWER	B00TH-2	39
POWER	BOOTH-2	27
POWER	ROOTH-4	33
POWER	B00TH-6	43
POWER	F-CLEANING	30
POWER	F-MIXING	21
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	26
POWER	P-DOOR	15
BOOTH-1	ROOTH-3	13
BOOTH-1	BOOTH-5	28
BOOTH-1	BOOTH-2	23
B00TH-1	E00TH-4	29
B00TH-1	6-HT003	33
300TH-1	P-CLEANING	25
B00TH-1	F-MIXING	14
R00TH-1	LOCKERS	35
BGOTH-1	FLAM-LIGUID	41
BOOTH-1	TABLE	39
. BOOTH-1	PAINT-AREA	21
BOOTH-1	P-DOOR	17
B00TH-3	ROOTH-5	18
BOOTH-3	BOOTH-2	29
BCOTH-3	BOOTH-4	23
B00TH-3	B00TH-6	26
E-HT008	P-CLEANING	26
200TH-3	P-MIXING	11
E-HT003	LOCKERS	21
F00TH-3	FLAM-LIQUID	27
₽00TH - 3	TABLE	26
B00TH-3	PAINT-AREA	15
BOOTH-3	P-DOOR `	29
BOOTH-5	BOOTH-2	33.
E00TH-5	BOOTH-4	26
B00TH-5	6-HT004	23
B00TH-5	P-CLEANING	30
800TH-5	P-MIXING	20
B00TH-5	LOCKERS	16
B00TH-5	FLAM-LIQUID	22
B00TH-5	TABLE	17
BOOTH-5	PAINT-AREA	17
BOOTH-5	P-DOOR	37

	5.50511 ·	
B00TH-2	BOOTH-4	18
B00TH-2	BOOTH-6	28
BOOTH-2	P-CLEANING	13
BOOTH-2	F-MIXING	24
BOOTH-2	LOCKERS	34
B00TH-2	FLAM-LIQUID	32
B00TH-2	TABLE	33
BOOTH-2	PAINT-AREA	21
B00TH-2	P-NOOR	17
B00TH-4	B00TH-6	13
ROOTH-4	P-CLEANING	11
ROOTH-4	P-MIXING	23
ROOTH-4	LOCKERS	22
ROOTH-4	FLAM-LIQUID	20
BOOTH-4	TABLE	21
ROOTH-4	PAINT-AREA	17
BOOTH-4	P-DOOR	20
R00TH-6	P-CLEANING	21
BOOTH-6	P-MIXING	27
2007H-6	LOCKERS	15
BCOTH-6	FLAM-LIQUID	9
ROOTH-6	TABLE	11
BOOTH-6	PAINT-AREA	18
B00TH-6	P-BOOR	38
P-CLEANING	P-MIXING	24
P-CLEANING	LOCKERS	29
P-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27

P-CLEANING	PAINT-AREA	18 23
F-CLEANING	P-DOOR	
F-MIXING	LOCKERS	26 70
P-MIXING	FLAM-LIQUID	32
F-MIXING	TABLE	29
P-MIXING	PAINT-AREA	18
F-MIXING	P-DOOR	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	7
LOCKERS	PAINT-AREA	19.
LOCKERS	P-100R	43
FLAM-LIQUID	TABLE	۶
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOOR	45
PAINT-AREA	P-DOOR	27

!	! !	VACUUM !	!POWER!
	! -		!!
!	: CURTAIN-1	(X)	11
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!	BLASTING		!!
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	!		!!
!	i		!!
!	curtain-2		!!
! !	!!!	RECOVERY-ARE	A! !-
	!	BLASTER	!

Name	Location	I	Body/Frad/FT
WORKPLACES: BLASTING BLASTER VACUUM RECOVERY-AREA FOWER CURTAIN-1 B-DOOR SHAKER-1 SHAKER-2 CURTAIN-2 PAINT-AREA LOCKER-AREA	0,5 30,3 29,17 30,5 46,17 25,12 50,6 41,0 31,0 25,5 0,20 1,21	50,14 15,2 12,2 15,2 6,2 0,7 1,11 3,2 3,2 0,7 50,1 10,1	
TOOLS: PLIERS WRENCH RAG SCREWDRIVER	0F 0P 0P 0P		

BLASTING	
BLASTING	FRAG
BLASTING	
BLASTING	FRAG
	FRAG
BLASTING	FRAG
BLASTING	FRAG
BLASTER	FRAG
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	FRAG
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BLASTING	
BLASTING	40,15 B
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	17 22
	25
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	46
iuμνεν_1	70
	BLASTING BLASTER RECOVERY-AREA RECOVERY-AREA RECOVERY-AREA RECOVERY-AREA LOCKER-AREA

BLASTING	SHAKER-2	53
BLASTING	CURTAIN-2	13
BLASTING	PAINT-AREA	50
BLASTING	LOCKER-AREA	75 07
BLASTER	VACUUM	26
BLASTER	RECOVERY-AREA	۶ 20
BLASTER	POWER	29
BLASTER	CURTAIN-1	26 19
BLASTER	B-DOOR	30
BLASTER	SHAKER-1	30 36
BLASTER	SHAKER-2	
BLASTER	CURTAIN-2	14 75
BLASTER	PAINT-AREA	
BLASTER	LOCKER-AREA	100
VACUUM	RECOVERY-AREA	24
VACUUM	POWER .	11
VACUUM	CURTAIN-1	17
VACUUM	B-000R	17
VACUUM	SHAKER-1	45
VACUUM	SHAKER-2	53
VACUUM	CURTAIN-2	25
VACUUN	FAINT-AREA	40
VACUUN	LOCKER-AREA	75
RECOVERY-AREA	POWER	28
RECOVERY-AREA	CURTAIN-1	25
RECOVERY-AREA	B-DOCR	18
RECOVERY-AREA	SHAKER-1	32
RECOVERY-AREA	SHAKER-2	40
RECOVERY-AREA	CURTAIN-2	14
RECOVERY-AREA	PAINT-AREA	65
RECOVERY-AREA	LOCKER-AREA	73 27
POWER	CURTAIN-1	26
POWER	B-DOOR	1ó
POWER	SHAKER-1	46
POWER	SHAKER-2	54 28
POWER	CURTAIN-2	30
POWER	PAINT-AREA	50.
POWER	LOCKER-AREA	26
CURTAIN-1	B-DOOR	48
CURTAIN-1	SHAKER-1	56
CURTAIN-1	SHAKER-2	26
CURTAIN-1	CURTAIN-2	45 65
CURTAIN-1	PAINT-AREA	75
CURTAIN-1	LOCKER-AREA	73 31
B-DOOR	SHAKER-1	39
B-DOOR	SHAKER-2	26
E-DOOR	CURTAIN-2	20

B-000R	· PAINT-AREA	50
B-000R	LOCKER-AREA	70
SHAKER-1	SHANER-2	11
SHAKER-1	CURTAIN-2	43
SHAKER-1	PAINT-AREA	76
SHAKER-1	LOCKER-AREA	125
SHAKER-2	CURTAIN-2	51
SHAKER-2	PAINT-AREA	106
SHAKER-2	LOCKER-AREA	134
CURTAIN-2	Paint-Area	70
CURTAIN-2	LOCKER-AREA	80
PAINT-AREA	LOCKER-AREA	25

		THINNER-	STORAGE	
			H-2	!!!
FLAM-LIQUID '		 FHKTKO	: !!	TOOL-ROOM
TABLE!			11	!!
!			!!	
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!!!	PAINT-AR	ES	P-DOGR	
LGCKERS !!!	LHTM!_HW	En	!!	!!
! ! ! ! ! !	(X)		!!	!!
: : : !	****		!!	PAINT-STORAGE
 ! ! !			i i	!!
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!	!	!	!!	PAINT-OFFICE
				PHIMI-OFFICE
C-h1004	B001H-3		POWER	•
Name		Locatio	on 	Body/Fras/fl
		Locatio	on 	Body/Fras/Pi
WORKPLACES:				Body/Frag/F
WORKPLACES: PAINT-OFFICE		65,0	 6,5	Body/Frad/f
WORKFLACES: FAINT-OFFICE PAINT-STORAGE		65,0 65,5		Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM		65,0	 6,5 6,5	Body/Fras/f
WORKFLACES: FAINT-OFFICE PAINT-STORAGE		65,0 65,5 66,15	 6,5 6,5 5,5	Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE		65,0 65,5 66,15 35,21 46,0 35,1	6,5 6,5 5,5 10,1 4,1 10,1	Body/Frad/f
WGRKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3		65,0 65,5 66,15 35,21 46,0 35,1 17,1	6,5 6,5 5,5 10,1 4,1 10,1	Body/Fras/f
WGRKFLACES: FAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 EOOTH-5		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1	6,5 6,5 5,5 10,1 4,1 10,1 10,1	Body/Fras/f
WORKFLACES: FAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE FOWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1	Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1	Body/Frag/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-6		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1	Body/Frad/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-6 P-CLEANING		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19 27,17	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1	Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-6 P-CLEANING F-MIXING		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1 10,1	Body/Frad/F
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-6 P-CLEANING F-MIXING LOCKERS		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19 27,17 27,1 0,5 0,17	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1 10,1	Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-6 P-CLEANING F-MIXING		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19 27,17 27,1 0,5 0,17 0,15	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1 10,1	Body/Fras/f
WORKPLACES: PAINT-OFFICE PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER ROOTH-1 BOOTH-3 BOOTH-5 BOOTH-4 BOOTH-4 BOOTH-6 P-CLEANING P-MIXING LOCKERS FLAM-LIQUID		65,0 65,5 66,15 35,21 46,0 35,1 17,1 5,1 35,19 17,19 5,19 27,17 27,1 0,5 0,17	6,5 6,5 5,5 10,1 4,1 10,1 10,1 10,1 10,1 10,1 10,1	Body/Frag/P

FAINT-OFFICE	PAINT-STORAGE	103
From	To	· Steps
OPERATORS: OP	FAINT-AREA	25+8 B
DOLLY	P-MIXING	
RAG-1	P-MIXING	FRAG
S-HOLDER	P-MIXING	
SYPHON-TURE	P-NIXING	
INNER-FILTER	P-MIXING	
FILTER	P-MIXING	
FILTER-CAP	P-MIXING	
SCREW	F-MIXING	FRAG
SPRAYGUN	F-MIXING	FRAG
THINNERPAIL	F-HIXING	
SPRAY-TIP	F-MIXING	
MIXCAN	F-MIXING	
THINNERTANK	P-HIXING	
AIRMIXER	F-MIXING	
FILL-TUBE	P-MIXING	
FAINTCAN-1	P-CLEANING	
PAINTCAN	P-CLEANING	FRAG
COVER	P-CLEANING	
PAINT-POT	P-CLEANING	
WINGNUTS	P-CLEANING	FKAG
FAINTCOVER	P-CLEANING	F0.45
AIRHOSE	P-CLEANING	· FRAG
SCREENTANK	F-CLEANING	
PAINTCAN-2	P-CLEANING	
NOZZLE	BOOTH-6	FRHU
LEVER		FRAG
BUTTON	BOOTH-6	FRAG
PAINT	PAINT-STORAGE POWER	
OBJECTS:	DATUT CTODAGE	
00 IE0704		
RAG	0P	
PLIERS	- OP	
SCREWDRIVER	OP	
CRESENTWRENCH	OP	•
SCREEN	P-CLEANING	
GLOVES	P-CLEANING	
STICK	P-CLEANING	
TOOLS:	5 0 5411110	

PAINT-OFFICE		TOOL-ROOM	233
PAINT-OFFICE		THINNER-STORAGE	123
PAINT-OFFICE		POWER	149
PAINT-OFFICE		BOOTH-1	. 147
PAINT-OFFICE		E00TH-3	165
PAINT-OFFICE		B00TH-5	167
PAINT-OFFICE		BOOTH-2	127
PAINT-OFFICE		BOOTH-4	153
PAINT-OFFICE		B00TH-6	163
PAINT-OFFICE		P-CLEANING	135
PAINT-OFFICE	_	P-MIXING	153
PAINT-OFFICE	·	LOCKERS	169
PAINT-OFFICE	•	FLAM-LIQUID	170
PAINT-OFFICE		TABLE	169
PAINT-OFFICE		PAINT-AREA	153
PAINT-OFFICE	•	F-DOOR	120
FAINT-STORAGE		TUOL-ROOM	203
PAINT-STORAGE		THINNER-STORAGE	53
FAINT-STORAGE		POWER	63
PAINT-STORAGE		BCOTH-1	ó1
PAINT-STORAGE		E00TH-3	63
PAINT-STORAGE		BOOTH-5	75
PAINT-STORAGE		BOOTH-2	43
PAINT-STORAGE		B00TH-4	59
PAINT-STORAGE		6-HT003	73
PAINT-STORAGE		P-CLEANING	49
PAINT-STORAGE		P-MIXING	· 55
PAINT-STORAGE		LOCKERS	77
PAINT-STORAGE		FLAM-LIQUID	75
PAINT-STORAGE		TABLE	76
PAINT-STORAGE		PAINT-AREA	61 7.
PAINT-STORAGE		P-DOGR	36
TOOL-ROOM		THINNER-STORAGE	217
TOOL-ROOM		POWER	233
TOOL-ROOM		B00TH-1	231
TOOL-ROOM		BOOTH-3	237
TOOL-ROOM		BOOTH-5	255 219.
TOOL-ROOM		BOOTH-2	231
TOOL-ROOM		BOOTH-4	251 250
TOOL-ROOM		BOOTH-6	225
TOOL-ROOM		P-CLEANING	233
TOOL-ROOM		P-MIXING	263
TOOL-ROOM		LOCKERS	261
TOOL-ROOM		FLAM-LIQUID	262
TOOL-ROOM		TABLE PAINT-AREA	233
TOOL-ROOM			236
TOOL-ROOM		P-DOOR	200

THINNER-STORAGE	POWER	38
THINNER-STORAGE	B00TH-1	38
THINNER-STORAGE	B00TH-3	45
THINNER-STORAGE	BOOTH-5	55
THINNER-STORAGE	BOOTH-2	26
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	B00TH-6	47
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING .	39
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	PAINT-AREA	36
THINNER-STORAGE	F-I:00R	28
POWER	ROOTH-1	14
POWER	ROOTH-3	29
POWER	ROOTH-5	37
POWER	B00TH-2	27
POWER	ROOTH-4	33
FOWER	1007H -4	43
POWER	P-CLEANING	30
POWER	P-MIXING	21
POWER	LOCKERS	44
	FLAM-LIQUID	47
POWER POWER	TABLE	46
	PAINT-AREA	28
POWER	•	26 15
POWER	P-DOOR .	
800TH-1 ·	BOOTH-3	13
800TH-1	B00TH-5	28
BOOTH-1	BGOTH-2	23
BOOTH-1	BOOTH-4	29
R00TH-1	BGOTH-6	33
ROOTH-1	F-CLEANING	25
B00TH-1	P-HIXING	14
BOOTH-1	LOCKERS	35
BOOTH-1	FLAM-LIQUID	41
BOOTH-1	TABLE	39
B00TH-1	PAINT-AREA	21.
BOOTH-1	P-DOOR	17
B00TH-3	BOOTH-5	18
R00TH-3	BOOTH-2	29
BOOTH-3	ROOTH-4	23
BOOTH-3	800TH-6	26
ROOTH-3	F-CLEANING	26
B00TH-3	P-MIXING	11
R00TH-3	LOCKERS	21
E-HT004	FLAM-LIQUID	29

		0.1
B00TH-3	· TABLE	26
B00TH-3	PAINT-AREA	. 15
E-HT003	P-DOOR	2 7
BOOTH-5	BOOTH-2	33
B00TH-5	B00TH-4	26
B00TH-5	6-HT003	23
B00TH-5	P-CLEANING	30
BOOTH-5	F-MIXING	20
B00TH-5	LOCKERS	16
B00TH-5	FLAM-LIQUID	22
B00TH-5	TABLE	19
B00TH-5	PAINT-AREA	17
BOOTH-5	P-100R	37
B00TH-2	BOOTH-4	18
B00TH-2	BGOTH-6	28
BOOTH-2	F-CLEANING	13
B00TH-2	P-MIXING	24
B00TH-2	LOCKERS	34
B00TH-2	FLAM-LIQUID	32
800TH-2	TABLE	33
B00TH-2	PAINT-AREA	21
B00TH-2	F-1:00R	. 17
BOOTH-4	ò-HT00 3	13
BOOTH-4	F-CLEANING	11
BOOTH-4	F-MIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
BOOTH-4	TABLE	21
BOOTH-4	PAINT-AREA	17
BOOTH-4	P-DOOR	20
6-HT003	P-CLEANING	21
B00TH-6	F-MIXING	29
6-HT003	LOCKERS	15
8-HT004	FLAM-LIQUID	7
POOTH-6	TABLE	11
ROOTH-6	PAINT-AREA	18
BOOTH-6	F-DOOR	38
F-CLEANING -	P-HIXING	24.
F-CLEANING	LOCKERS	. 29
F-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	13
P-CLEANING	F-DOGR	23
P-MIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29
F-MIXING	PAINT-AREA	18

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F-MIXING	F-1100R	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	7
LOCKERS .	FAINT-AREA	19
LOCKERS	F-DOOR	43
FLAM-LIQUID	TABLE	9
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	F-DOOR	46
TABLE	PAINT-AREA	19
TABLE	F-DOOR	45
PAINT-AREA	P-DOOR	27

	THINNER-ST	 ORAGE	
			 ! !
BOOTH-6			; ;
		!!	TOOL-ROOK
!		ii	!!!
TABLE!		::	
!		11	
!!!!		11	
!!!		11	
!!!!		ii	
!!! LOCKERS	PAINT-AREA	F-000R	
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: : : ! ! !	(X)	i i	!!!
1 []	••••	!!	FAINT-STORAGE
1 1 1	•	!!	!!!
1		!!	
		!!	
!	! !	!!	1 !
			PAINT-OFFICE
E-HT00a	-HT00aE-HT00a-		! !
		POWER	
Name	Location		Body/Fras/PT
149115			
	•		
WORKPLACES:		- -	
PAINT-OFFICE		6,5	
PAINT-STORAGE	65,5	6,5	
TOOL-ROOM	66,15	5,5	
THINNER-STORAGE	35,21	10,1 -4,1	
POWER		10,1	
BOOTH-1	35,1 17,1 ·	10,1	
300TH-3	5,1	10,1	
800TH-5	35,19	10,1	
BOOTH-2 BOOTH-4	17,19	10,1	
BOOTH-6	5,19	10,1	
P-CLEANING	27,17	8,3	
P-MIXING	27,1	8,3	
LOCKERS	0,5	2,10	
FLAM-LIQUID	0,17	2,2	
TABLE	0,15	3,2	
PAINT-AREA	5,2	45,16	•
5 5005	50.1	1.18	

1,18

50,1

P-DOOR

TOOLS: MIXCAN STICK GLOVES RAG SCREEN CRESENTWRENCH SPRAYGUN SCREWDRIVER PLIERS	P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING LOCKERS OP	
OBJECTS:		
PAINT	PAINT-STORAGE	
BUTTON	POWER	
NOZZLE	BOOTH-6	FRAG
LEVER	B00TH-6	· FRAG
PAINTCAN-1 PAINTCAN-2	P-CLEANING P-CLEANING	
SCREENTANK	P-CLEANING P-CLEANING	
AIRHOSE	P-CLEANING	FRAG
PAINTCOVER	P-CLEANING	1 1110
WINGNUTS	F-CLEANING	FRAG
FAINT-FOT	P-CLEANING	
COVER	P-CLEANING	•
PAINTCAN	P-CLEANING	FRAG
DOLLY	P-MIXING	
OPERATORS:		
OP	PAINT-AREA	25,8 B
ur	LHTIK! -HIVEH	2376 h
From	То	Sters
PAINT-OFFICE	PAINT-STORAGE	103
PAINT-OFFICE	TOOL-ROOM	233
PAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	POWER	149.
PAINT-OFFICE	BOOTH-1	147
PAINT-OFFICE	BOOTH-3	165
PAINT-OFFICE	BOOTH-5	167
PAINT-OFFICE PAINT-OFFICE	BOOTH-2 BOOTH-4	127 153
PAINT-OFFICE	ROOTH-4	163
PAINT-OFFICE	F-CLEANING	135
PAINT-OFFICE	F-MIXING	153
FAINT-OFFICE	LOCKERS	169

PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE	TABLE	167
PAINT-OFFICE	PAINT-AREA	153
PAINT-OFFICE	· F-DOOR	120
PAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	63
PAINT-STORAGE	BOOTH-1	61
PAINT-STORAGE	B00TH-3	63
PAINT-STORAGE	ROOTH-5	75 17
PAINT-STORAGE	BOOTH-2	43
PAINT-STORAGE	BOOTH-4	59
PAINT-STORAGE	6-HT004	73
PAINT-STORAGE	P-CLEANING	47
PAINT-STORAGE	P-MIXING	55
PAINT-STORAGE	LOCKERS -	77
PAINT-STORAGE	FLAM-LIQUID	75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	PAINT-AREA	<u>51</u>
PAINT-STORAGE	P-000R	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	B00TH-3	237
TOOL-ROOM	BOOTH-5	255
TOOL-ROOM	BOOTH-2	219
TOOL-ROOM	BOOTH-4	231
TOOL-ROOM	BOOTH-6	250
TOOL-ROOM	P-CLEANING	225
TOOL-ROOM	P-MIXING	233
TOOL-ROOM	LOCKERS	253
TOOL-ROOM	FLAM-LIQUID	261
TOOL-ROOM	TABLE	262
TOOL-ROOM	PAINT-AREA	233
TOOL-ROOM	P-DOOR	236
THINNER-STORAGE	POWER	38
THINNER-STORAGE	BOOTH-1	38
THINNER-STORAGE	B00TH-3	45.
THINNER-STORAGE	B00TH-5	55
THINNER-STORAGE	B00TH-2	26
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	ROOTH-6	47
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING	39
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	.FLAM-LIQUID	56 57
THINNER-STORAGE	TABLE	57

8001H-1 8001H-1 8001H-1 8001H-1 8001H-1 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3 8001H-3	POWER
·	
F-CLEANING F-KIXING LOCKERS FLAM-LIQUID TABLE FAINT-AREA F-DOOR BOOTH-5 BOOTH-4 BOOTH-4 BOOTH-4 F-CLEANING F-MIXING LOCKERS FLAM-LIQUID TABLE FAINT-AREA P-DOOR BOOTH-4 BOOTH-4 BOOTH-6 F-CLEANING F-MIXING F-MIXING F-CLEANING F-MIXING F-CLEANING F-MIXING F-CLEANING F-MIXING FLAM-LIQUID TABLE FAINT-AREA	P-CLEANING P-CLEANING P-MIXING LOCKERS FLAM-LIQUID TABLE PAINT-AREA P-DOOR BOOTH-3 BOOTH-3 BOOTH-4 BOOTH-4
33 22 23 24 24 25 25 26 27 27 27 27 27 27 27 27 27 27 27 27 27	\$2225544423t

BOOTH-5	P-100R	3 ?
B00TH-2	B00TH-4	18
BCOTH-2	B00TH-6	28
BOOTH-2	P-CLEANING	13
B00TH-2	P-MIXING	24
B00TH-2	LOCKERS	34
B00TH-2	FLAM-LIQUID	32
BOOTH-2	TABLE	33
BOOTH-2	PAINT-AREA	21
BOOTH-2	P-100R	17
BOOTH-4	B00TH-6	13
BOOTH-4	P-CLEANING	11
ROOTH-4	P-MIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
B00TH-4	TABLE	21
BOOTH-4	PAINT-AREA	17
B00TH-4	P-DOOR	20
BOOTH-6	P-CLEANING	21
800TH-6	P-MIXING	29
BOOTH-6	LOCKERS	15
BOOTH-6	FLAK-LIQUID	7
BOGTH-6	TABLE	11
BOOTH-6	PAINT-AREA .	18
B00TH-6	P-DOOR	38
P-CLEANING	P-HIXING	24
P-CLEANING	LOCKERS	29
P-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	18
P-CLEANING	P-100R	23
F-MIXING	LOCKERS	26
F-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29
P-MIXING	PAINT-AREA	18
P-MIXING	P-DOOR	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9.
LOCKERS	PAINT-AREA	19
LOCKERS	P-DOOR	43
FLAM-LIQUID	TABLE	7 20
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	45 17
TABLE	PAINT-AREA	
TABLE DATHE AREA	P-DOOR	45 27
PAINT-AREA	P-DOOR	21

PAGE 38

	 THINNER-	 -STORAGE	
	 BGOTH-4BOOT	 7H-2	!!!
FLAM-LIQUID	F-CLEANING		!!!
į		11	TOOL-ROOM
TABLE!		!!	!!
!		11	
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1 1 1		. !!	
LOCKERS	PAINT-AREA	P-DOOR	
1 1 1		i i	!!
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!!!	•	i i	PAINT-STORAGE
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	F-MIXING	!	PAINT-OFFICE
BOOTH-5	BOOTH-3		i i
		POWER	
Name	Locatio	Of:	Bods/Fras/FT
WORKPLACES:			
PAINT-OFFICE	65,0	6,5	
FAINT-STORAGE	65,5	6,5	
TOOL-ROOM	66,15	5,5	
THINNER-STORAGE	35,21	10,1	
POWER	46:0	4,1	
B00TH-1	35,1	10,1	
BOOTH-3	17,1	10,1	
BOOTH-5	5,1	10,1	
BOOTH-2	35,19	10,1	
RCOTH-4	17,19	10,1	•
B00TH-6	5,19	10,1	
P-CLEANING	27,17	8,3	
P-MIXING	27,1	6,3	
LOCKERS	0,5	2,10	
FLAM-LIQUID	0,17	2,2	
TABLE	0,15 5,2	3,2	

5,2

50,1

PAINT-AREA P-DOOR 45,16

1,18

TOOLS: STICK GLOVES RAG SCREEN CRESENTWRENCH SPRAYGUN SCREWDRIVER FLIERS	F-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING - LOCKERS OP	
OBJECTS: PAINT BUTTON NOZZLE LEVER PAINTCAN-1 PAINTCAN-2	PAINT-STORAGE POWER BOOTH-6 BOOTH-6 P-CLEANING P-CLEANING	FRAG FRAG
SCREENTANK AIRHOSE PAINTCOVER WINGNUTS PAINT-POT	P-CLEANING P-CLEANING P-CLEANING P-CLEANING	FRAG FRAG
COVER PAINTCAN DOLLY AIRMIXER THINNERTANK MIXCAN	F-CLEANING F-CLEANING P-MIXING P-MIXING P-MIXING P-MIXING P-MIXING	FRAG
OPERATORS: OP	PAINT-AREA	25,8 B
From	To	Sters
PAINT-OFFICE	PAINT-STORAGE TOOL-ROOM THINNER-STORAGE POWER BGOTH-1 BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-6 P-CLEANING	103 233. 123 149 147 165 167 127 153 163 135

PAINT-OFFICE	P-MIXING	153
FAINT-OFFICE	LOCKERS	169
PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE	TABLE	169
PAINT-OFFICE	faint-area	153
PAINT-OFFICE	P-DOOR	120
PAINT-STORAGE	TUOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	63
PAINT-STORAGE	BOOTH-1	61
FAINT-STORAGE	B00TH-3	63
PAINT-STORAGE	BOOTH-5	<i>7</i> 5
PAINT-STORAGE	BOOTH-2	43
PAINT-STORAGE	BOOTH-4	59
PAINT-STORAGE	800TH-6	73
PAINT-STORAGE	P-CLEANING	49
PAINT-STORAGE	P-HIXING	55
PAINT-STORAGE	LOCKERS	77
FAINT-STORAGE	FLAM-LIQUID	75
PAINT-STORAGE	TABLE	. 7á
PAINT-STORAGE	PAINT-AREA	61
PAINT-STORAGE	P-DGOR	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	: POWER	233
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	BOOTH-3	237
TOOL-ROOM	B00TH-5	255
TOOL-ROOM	B00TH-2	219
TOOL-ROOM	B00TH-4	231
TOOL-ROOM	BOOTH-6	250
TOOL-ROOM	P-CLEANING	225
TOOL-ROOM	P-HIXING .	233
TOOL-ROOM	LOCKERS	263
TOOL-ROOM	FLAM-LIQUID	261
TOOL-ROOM	TABLE	242
TOOL-ROOM	PAINT-AREA	233
TOOL-ROOM	P-DOOR	236
THINNER-STORAGE	POWER	38,
THINNER-STORAGE	ROOTH-1	38
THINNER-STORAGE	BOOTH-3	45
THINNER-STORAGE	BOOTH-5	55
THINNER-STORAGE	BOOTH-2	25
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	BOOTH-6	47
THINNER-STORAGE	- P-CLEANING	3.4
THINNER-STORAGE	P-MIXING	39
THINNER-STORAGE	LOCKERS	58
		

800TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3 800TH-3	
BOOTH-5 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 P-CLEANI P-AIXING P-AIXING PAINT-A PAINT-A BOOTH-6 P-CLEAN P-BOOTH-6 P-CLEAN P-BOOTH-6 P-CLEAN P-MIXING P-MIXING P-MIXING P-CLEAN P-MIXING P-CLEAN P-MIXING P-MIX	BOOTH-4 BOOTH-6 F-CLEANI P-CLEANI P-MIXING FLAM-LIQ TABLE FAINT-AR F-DOOR BOOTH-3
EGOTH-5 EGOTH-6 EGOTH-6 EGOTH-6 EGOTH-6 EGOTH-6 P-KIXING P-KIXING P-KIXING P-KIXING F-DOCK F-DOCK F-DOCK F-CLEANING P-CLEANING P-CLEANING P-DOCK F-DOCK F-CLEANING F-AINT-4 EGOTH-6 E-CLEANING F-CLEANING F-CLEAN	BOOTH-4 BOOTH-6 BOOTH-6 F-CLEAKING F-KIXING F-KIXING FLAM-LIQUID TABLE FAINT-AREA F-DOOR BOOTH-3

B00TH-5	TABLE	17
BOOTH-5	PAINT-AREA	17
BOOTH-5	P-DOOR	37
BOOTH-2	ROOTH-4	18
BOOTH-2	6-HT003	28
BOOTH-2	P-CLEANING	13
BOOTH-2	P-MIXING	13 24
	LOCKERS	
ROOTH-2	FLAM-LIQUID	34
BOOTH-2		32
BOOTH-2	TABLE	33
B00TH-2	PAINT-AREA	21
BOOTH-2	P-DOOR	17
BOOTH-4	ROOTH-6	13
BOOTH-4	P-CLEANING	11
BOOTH-4	P-MIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
B00TH-4	TABLE	21
BOOTH-4	PAINT-AREA	17
BOOTH-4	P-000R	20
BOOTH-6	P-CLEANING	21
BOOTH-6	F-MIXING	29
BOOTH-6	LOCKERS	· 15
BOOTH-6	FLAM-LIQUID	· 9
BOOTH-6	TABLE	11
BOOTH-6	PAINT-AREA	18
BOOTH-6	P-DOOR	36
P-CLEANING	P-MIXING	24
P-CLEANING	LOCKERS	29
P-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	16
P-CLEANING	F-DOOR	23
P-MIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29
P-MIXING	PAINT-AREA	18
P-MIXING	F-DOOR	23-
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9
LOCKERS	PAINT-AREA	19
LOCKERS	P-DOOR	43
FLAM-LIQUID	TABLE	9
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOOR	45
IUNFF	I DOOK	7.0

PAINT-AREA P-DOOR 27

THINNER-STORAGE

	ול־הַאַאַאַרווו	UKHUE	
	BOOTH-4BOOTH-	-2	! !
	P-CLEANING		1 1
!		ii	TOOL-ROOM
TABLE!		ii	!!!
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111		ii	
		11	
111		11	
		!!	
LOCKERS	PAINT-AREA	P-DOOR	
1 1 1		!!	!!
111	(X)	!!	• ! !
1 1 1	•	!!	PAINT-STORAGE
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į	i i	!!	!!
	F-MIXING	!	PAINT-OFFICE
BOOTH-5	BOOTH-3BOOTH-	1	!!!
		POWER	
	•		
Name	Location		Body/Fras/PT
	***************************************	· -	
	•		•
WORKPLACES:	/F A	, =	
PAINT-OFFICE	65,0 65,5	6,5 6,5	
PAINT-STORAGE TOOL-ROOM	66,15	5,5	
THINNER-STORAGE	35,21	10,1	
POWER	46,0	4,1	
BOOTH-1	35,1	10,1	
BOOTH-3	17,1	10,1	•
BOOTH-5	5,1	10,1	
BOOTH-2	35,19	10,1	•
BOOTH-4	17,19	10,1	
B00TH-6	5,19	10,1	•
P-CLEANING	27,17	8,3	
P-MIXING	27,1	8,3	•
LOCKERS	0,5	2,10	
FLAM-LIQUID	0,17	2,2	
TABLE	0,15	3,2	
PAINT-AREA	5,2	45,16	
	EA 4	1,18	
F-DOOR	50,1	1710	

F-CLEANING

TOOLS:

MIXCAN

MIXLMM STICK GLOVES RAG SCREEN AIRHOSE SPRAYGUN PLIERS SCREWDRIVER	P-CLEANING P-CLEANING P-CLEANING P-CLEANING P-CLEANING LOCKERS OP	
OBJECTS: PAINT	PAINT-STORAGE	
BUTTON	POWER	
PAINTCOVER	P-CLEANING	
PAINTCAN	P-CLEANING	
PAINTCAN-1	P-CLEANING	
Paintcan-2	F-CLEANING	
SCREENTANK	P-CLEANING	
OPERATORS:		ar a .
OF:	PAINT-AREA	25:8 B
From	То	Sters
PAINT-OFFICE -	PAINT-STORAGE	. 103
PAINT-OFFICE	TOOL-ROOM	233
FAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	POWER	147
FAINT-OFFICE	BOOTH-1	147
PAINT-OFFICE	BOOTH-3	165 167
PAINT-OFFICE	BOOTH-5	187 127
PAINT-OFFICE	BOOTH-2	153
PAINT-OFFICE	BOOTH-4 BOOTH-6	163
PAINT-OFFICE	F-CLEANING	135
PAINT-OFFICE PAINT-OFFICE	F-MIXING	153
PAINT-OFFICE	LOCKERS	169
PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE	TABLE	167
PAINT-OFFICE	PAINT-AREA	153
PAINT-OFFICE	P-DOOR	120
PAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	63

FAINT-STORAGE	B00TH-1	ð1
FAINT-STORAGE	B00TH-3	63
PAINT-STORAGE	B00TH-5	75
FAINT-STORAGE	B00TH-2	43
* *************************************		
PAINT-STORAGE	BOOTH-4	59
PAINT-STORAGE	300TH-6	73
PAINT-STORAGE	P-CLEANING	49
PAINT-STORAGE	P-MIXING	55
	LOCKERS	
PAINT-STORAGE		77
PAINT-STORAGE	FLAM-LIQUID	75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	PAINT-AREA	61
PAINT-STORAGE	F-100R	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233
TOOL-ROOM	BGOTH-1	231
TOOL-ROOM	BOOTH-3	237
T00L-R00X	B00TH-S	255
		2.9
TOOL-ROOM	B00TH-2	
T03L-R00M	₽00TH-4	231
TOOL-ROOM	à-HT008	250
TOOL-ROOM	P-CLEANING	225
	F-MIXING -	233
TOOL-ROOM		
TOOL-ROOM	LOCKERS	253
TOOL-ROOM	FLAM-LIQUID	261
TOOL-ROOM	TABLE	262
TOOL-ROOM	PAINT-AREA	233
	P-DOOR	236
TOOL-ROOM		_
THINNER-STORAGE	FOWER	38
THINNER-STORAGE	FOOTH-1	38
THINNER-STORAGE	B00TH-3	45
THINNER-STORAGE	B00TH-5	55
	BOOTH-2	2n
THINNER-STORAGE		_
THINNER-STORAGE	BOOTH-4	40
THINNER-STORAGE	B00TH-6	47
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING	• 39
***************************************	LOCKERS	5a
THINNER-STORAGE		
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	FAINT-AREA	36
THINNER-STORAGE	F-800R	28
POWER	BOOTH-1	14
FOWER	B00TH-3	29
POWER	ROOTH-5	39
POWER	BOOTH-2	27
POWER	BOOTH-4	33

POWER	6-HT003	43
POWER	P-CLEANING	30
POWER	P-MIXING	21
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	28
POWER	` P-DOOR	15
BOOTH-1	B00TH-3	18
BOOTH-1	BOOTH-5	28
BOOTH-1	B00TH-2	23
BOOTH-1	B00TH-4	29
BOOTH-1	6-HT004	33
BOOTH-1	P-CLEANING	25
BOOTH-1	P-MIXING	14
BOOTH-1	LOCKERS	35
BOOTH-1	FLAM-LIQUID	41
BOOTH-1	TABLE	30
BOOTH-1	PAINT-AREA	21
BOOTH-1	P-1100R	17
BOOTH-3	BOOTH-5	13
BOOTH-3	BOOTH-2	29
BOOTH-3	BOOTH-4	23
BOOTH-3	BOOTH-6	26
BOOTH-3	P-CLEANING	26
BOOTH-3	P-MIXING	11
BOOTH-3	LOCKERS	21
ROOTH-3	FLAM-LIQUID	29
BOOTH-3	TABLE	26
BOOTH-3	PAINT-AREA	15
BCCTH-3	P-DOOR	29
ROOTH-5	BOOTH-2	33
BOOTH-5	BOOTH-4	26
BOOTH-5	BOOTH-6	23
BOOTH-5	P-CLEANING	. 30
BOOTH-5	P-MIXING	20
BOOTH-5	LOCKERS	16
800TH-5	FLAM-LIQUID	22
BOOTH-5	TABLE	19
800TH-5	PAINT-AREA	17
ROOTH-5	P-DOCR	37
BOOTH-2	BOOTH-4	18
B00TH-2	B00TH-6	28
BOOTH-2	P-CLEANING	13
BOOTH-2	P-MIXING	24
BOOTH-2	LOCKERS	34
	FLAM-LIQUID	32 32
BOOTH-2	I PULL FIGURE	

BOOTH-2	TABLE	33
BOOTH-2	PAINT-AREA	21
BOOTH-2	P-DOOR	17
B00TH-4	BOOTH-6	13
BOOTH-4	F-CLEANING	11
BOOTH-4	P-HIXING	23
BOOTH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
BOGTH-4	TABLE	21
BOOTH-4	PAINT-AREA	17
BOOTH-4	P-DGOR	20
R00TH-6	P-CLEANING	21
BOOTH-6	P-MIXING	29
B00TH-6	LOCKERS	15
BOOTH-6	FLAM-LIQUID	9
BOOTH-6	TABLE ·	11
BOOTH-6	PAINT-AREA	18
B00TH-6	P-DOOR	38
P-CLEANING	P-HIXING	24
P-CLEANING	LOCKERS	27
P-CLEANING	FLAM-LIQUID	26
P-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	18
P-CLEANING	P-DOOR .	23
P-HIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
P-HIXING	TABLE	29
P-MIXING	PAINT-AREA	18
P-MIXING	P-DOOR	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9
LOCKERS	PAINT-AREA	17
LOCKERS	P-DOOR	43
FLAM-LIQUID	TABLE	9
FLAM-LIQUID	PAINT-AREA	20
FLAN-LIQUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOOR	45
PAINT-AREA	P-DOOR	27
		_

		THINNER-S	TORAGE	
			 {-2	!!
FLAM-LIQUID				!!!
i			11	TOOL-ROOM
TABLE!			11	i i
100LL:		-	!!	
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1 1 1			!! '	
1 1 1			!!	
1 1 1			. !!	
LOCKERS	PAINT-AREA		P-000R	
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111	(X)		11	!!
: : : !!!!	νν,		11	PAINT-STORAGE
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:			11	!!
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:	P-MIX			PAINT-OFFICE
	BOOTH-3		1	1 - 1
	POOTH 5	2001.	POWER	
Name		Location	٠ .	Body/Frad/PT
	-			
HODED! ACCC!	•			
WORKPLACES:		65,0	6,5	•
PAINT-OFFICE	•	65,5	6,5	
PAINT-STORAGE		66,15	5,5	
TOOL-ROOM		35,21	10,1	
THINNER-STORAGE		46,0	4,1	
POWER 1		35,1	10,1	
BOOTH-1		17,1	10,1	
B00TH-3		5,1	10,1	
BOOTH-5		35,19	10,1	
B00TH-2		17,19	10,1	
BOOTH-4		5,19	10,1	•
BOOTH-6				
P-CLEANING		27,17	8,3 8,3	
P-MIXING		27,1	2,10	
LOCKERS		0,5		
FLAM-LIQUID		0,17	2,2	
TABLE		0,15	3,2	
PAINT-AREA		5,2	45,16	
F-DOOR		50,1	1,18	

TOOLS:

STICK P-CLEANING **GLOVES** P-CLEANING P-CLEANING SCREEN GP. CRESENTWRENCH 0P SCREWDRIVER OP. **PLIERS** 0P RAG **OBJECTS:** PAINT-STORAGE PAINT POWER BUTTON FRAG 8-HT003 NOZZLE BOOTH-6 WOODEN-BUCK 6-HT009 2X4-BOARD FRAG P-CLEANING LEVER P-CLEANING FRAG AIRHOSE P-CLEANING PAINTCOVER FRAG P-CLEANING WINGNUTS F-CLEANING PAINT-FOT P-CLEANING COVER FRAG PAINTCAN P-CLEANING P-CLEANING FAINTCAN-1 P-CLEANING PAINTCAN-2 SCREENTANK P-CLEANING SPRAY-TIP P-CLEANING P-CLEANING FRAG SPRAYGUN P-CLEANING NUT P-CLEANING THINNER P-HIXING MIXCAN FRAG SCREW F-MIXING FILTER-CAP F-MIXING F-MIXING FILTER F-MIXING INNER-FILTER P-MIXING SYPHON-TUBE P-HIXING S-HOLDER FRAG P-MIXING RAG-1 P-MIXING DOLLY P-MIXING FILL-TUBE P-MIXING AIRMIXER **P-MIXING** THINNERTANK P-MIXING THINNERPAIL LOCKERS COVERALLS TABLE PARTS-BOX TABLE 4'X8'-FANEL PAINT-AREA PARTS

OPERATORS: PAINT-AREA OF.

TOOL-ROOM

Sters Τo From 103 PAINT-STORAGE PAINT-OFFICE 233 TOOL-ROOM FAINT-OFFICE 123 THINNER-STORAGE PAINT-OFFICE 149 POWER PAINT-OFFICE 147 FOOTH-1 PAINT-OFFICE 165 BOOTH-3 PAINT-OFFICE B00TH-5 167 PAINT-OFFICE BOOTH-2 127 PAINT-OFFICE 153 BOOTH-4 PAINT-OFFICE B00TH-6 163 PAINT-OFFICE F-CLEANING . 135 PAINT-OFFICE P-HIXING 153 PAINT-OFFICE 105 PAINT-OFFICE LOCKERS 170 FLAM-LIQUID PAINT-OFFICE 167 TABLE PAINT-OFFICE 153 PAINT-AREA PAINT-OFFICE 120 P-DOOR FAINT-OFFICE 203 PAINT-STORAGE TOOL-ROOM 53 PAINT-STORAGE THINNER-STORAGE POWER 63 PAINT-STORAGE 61 BOOTH-1 PAINT-STORAGE 63 BOOTH-3 PAINT-STORAGE 75 FAINT-STORAGE BOOTH-5 43 BOOTH-2 PAINT-STORAGE 57 PAINT-STORAGE B00TH-4 73 B00TH-6 PAINT-STORAGE 49 F-CLEANING PAINT-STORAGE 55 PAINT-STORAGE P-MIXING 77 LOCKERS PAINT-STORAGE 75 FLAM-LIQUID PAINT-STORAGE 76 FAINT-STORAGE TABLE 61 **PAINT-STORAGE** PAINT-AREA P-DOOR 36 **PAINT-STORAGE** THINNER-STORAGE 217 TOOL-ROOM POWER 233 TOOL-ROOM BOOTH-1 231 TOOL-ROOM 237 B00TH-3 TOOL-ROOM 255 TOOL-ROOM **Z-HT003** 219 BCOTH-2 TOOL-ROOM BOOTH-4 231

25,6 B

TOOL-ROOM	B00TH-6	250
TOOL-ROOM	P-CLEANING	225
TOOL-ROOM	P-MIXING	233
TOOL-ROOM	LOCKERS	263
TOOL-ROOM	FLAM-LIQUID .	261
	TABLE	262
TOOL-ROOM		
TOOL-ROOM	PAINT-AREA	233
TOOL-ROOM	P-DOOR	236
THINNER-STORAGE	POWER	38
THINNER-STORAGE	BOOTH-1	38
THINNER-STORAGE	BOOTH-3	43
THINNER-STORAGE	BOOTH-5	55
THINNER-STORAGE	BOOTH-2	26
		40
THINNER-STORAGE	BOOTH-4	
THINNER-STORAGE	B00TH-6	47
THINNER-STORAGE	F-CLEANING	33
THINNER-STORAGE	P-MIXING '	37
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	FLAM-LIGUID	56
THINNER-STORAGE	TABLE	57
THINNER-STORAGE	PAINT-AREA	36 36
THINNER-STORAGE	F-DOOR	28
POWER	BOOTH-1	14
POWER	B00TH-3	29
POWER	B00TH-5	37
POWER	B00TH-2	27
POWER	ROOTH-4	. 33
POWER	BOOTH-6	43
POWER	P-CLEANING	30
· - · - · - · ·	P-MIXING	21
POWER		
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	4ó
POWER	PAINT-AREA	28
POWER	P-DOOR	15
ROOTH-1	B00TH-3	18
B00TH-1	ROOTH-S	28
BOOTH-1	BOOTH-2	23.
	B00TH-4	29
B00TH-1		
ROOTH-1	BOOTH-6	33
B00TH-1	P-CLEANING .	25
BOOTH-1	P-MIXING	14
BOOTH-1	LOCKERS	35
B00TH-1	FLAM-LIQUID	41
BOOTH-1 .	TABLE	39
ROOTH-1	PAINT-AREA	21
BOOTH-1	P-DOOR	17
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BOOTH-3	B00TH-5	18
B00TH-3	B00TH-2	29
ROOTH-3	BOOTH-4	23
B00TH-3	B00TH-6	20
BOOTH-3	P-CLEANING	26
B00TH-3	P-MIXING .	11
BOOTH-3	LOCKERS	21
BOOTH-3	FLAM-LIQUID	29
ROOTH-3	TABLE	26
BOOTH-3	PAINT-AREA	15
	P-DOOR	29
BOOTH-3	B00TH-2	33
BOOTH-5	BOOTH-4	26
800TH-5		23
B007H-5	BOOTH-6	30
800TH-5	P-CLEANING	
800TH-5	P-MIXING	20
BOOTH-5	LOCKERS	15 22
800TH-5	FLAM-LIQUID	19
BOOTH-5	TABLE	
B00TH-5	PAINT-AREA	17
BOOTH-5	F-DOOR	37
BOOTH-2	BOOTH-4	18
B00TH-2	BOOTH-6	28
BOOTH-2	P-CLEANING	13
BOOTH-2	P-MIXING	24
B00TH-2	LOCKERS	34
BOOTH-2	FLAM-LIQUID	32
BOOTH-2	TABLE	33
BOOTH-2	PAINT-AREA	21
B00TH-2	P-DOGR	17
B00TH-4	ROOTH-6	13
BOOTH-4	P-CLEANING	11
EOOTH-4	P-MIXING	23
B00TH-4	LOCKERS	22
BOOTH-4	FLAM-LIQUID	20
BOOTH-4	TABLE	21
BOOTH-4	PAINT-AREA	17
BOOTH-4	F-D00R	20-
6-HT003	P-CLEANING	21
BOOTH-6	F-MIXING	29
BOOTH-6	LOCKERS	15
BOOTH-6	FLAM-LIQUID	9
ò-HT003	TABLE	11
BOOTH-6	PAINT-AREA	18
B00TH-6	P-DOGR	33
F-CLEANING	P-MIXING	24
P-CLEANING	LOCKERS	27

F-CLEANING	FLAM-LIQUID	26
	TABLE	27
F-CLEANING	• • • • • • • • • • • • • • • • • • • •	18
F-CLEANING	PAINT-AREA	_
F-CLEANING	F-DOCR	23
F-MIXING	LOCKERS	26
P-MIXING	FLAM-LIQUID	32
F-MIXING	TABLE	29
F-MIXING	FAINT-AREA	18
P-MIXING	F-1:00R	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9
LOCKERS	FAINT-AREA	17
LOCKERS	P-100R	43
FLAM-LIQUID	TABLE .	9
FLAM-LIQUID	Paint-Area	20
FLAM-LIGUID	P-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOGR	45
PAINT-AREA	7-100R	27

TOOLS: STICK P-CLEANING **GLOVES** P-CLEANING SCREEN F-CLEANING CRESENTWRENCH 05 OP SCREWDRIVER **PLIERS** OF RAG OP OBJECTS: PAINT PAINT-STORAGE POWER BUTTON BOOTH-6 FRAG NOZZLE BCOTH-6 WOODEN-BUCK 2X4-BOARD BC:0TH-6 LEVER P-CLEANING FRAG AIRHOSE P-CLEANING FRAG P-CLEANING PAINTCOVER FRAG WINGNUTS P-CLEANING PAINT-POT F-CLEANING P-CLEANING COVER PAINTCAN F-CLEANING FRAG P-CLEANING PAINTCAN-1 PAINTCAN-2 P-CLEANING SCREENTANK F- CLEANING SPRAY-TIP P-CLEANING SFRAYGUN P-CLEANING FRAG TUN P-CLEANING THINNER P-CLEANING **MIXCAN** P-MIXING SCREW P-MIXING FRAG FILTER-CAP F-MIXING F-MIXING FILTER INNER-FILTER P-MIXING SYPHON-TUBE P-MIXING F-MIXING S-HOLDER RAG-1 F-MIXING FRAG DOLLY F-MIXING FILL-TUBE F-MIXING AIRMIXER F-MIXING THINNERTANK P-MIXING P-MIXING THINNERPAIL COVERALLS LOCKER-AREA TAPE LOCKER-AREA FRAG ZIPPER LOCKER-AREA LOCKER LOCKER-AREA PARTS-BOX TABLE

4'X8'-PANEL SECTION PARTS	TABLE PAINT-AREA PAINT-AREA	
OPERATORS: OP	PAINT-AREA	25,8 B
From	То	Sters
PAINT-OFFICE	PAINT-STORAGE	103
FAINT-OFFICE	TOOL-ROOM	233
PAINT-OFFICE	THINNER-STORAGE	123
PAINT-OFFICE	FOWER	147
PAINT-OFFICE	B00TH-1	147
PAINT-OFFICE	B00TH-3 *	165
PAINT-OFFICE	BOOTH-5	167
PAINT-OFFICE	B00TH-2	127
PAINT-OFFICE	BOCTH-4	153
PAINT-OFFICE	BOOTH-6	163
FAINT-OFFICE	F-CLEANING	135 153
PAINT-OFFICE	P-MIXING LOCKER-AREA	155 167
PAINT-OFFICE PAINT-OFFICE	FLAM-LIQUID	170
PAINT-OFFICE	TABLE	167
PAINT-OFFICE	PAINT-AREA	153
PAINT-OFFICE	F-000R	120
PAINT-STORAGE	TOUL-ROOM	203
FAINT-STORAGE	THINNER-STORAGE	53
FAINT-STORAGE	POUGR	63
PAINT-STORAGE	ROOTH-1	61
PAINT-STORAGE	BG0TH-3	63
PAINT-STORAGE	BOOTH-5	75
PAINT-STORAGE	BusifH-2	43
FAINT-STORAGE	BOOTH-4	59
FAINT-STORAGE	BUOTH-6	73
PAINT-STORAGE	P-CLEANING	47.
PAINT-STORAGE	F-MIXING	55
PAINT-STORAGE	LOCKER-AREA	77
PAINT-STORAGE	FLAM-LIQUID	75
FAINT-STORAGE	TABLE	76
PAINT-STORAGE	PAINT-AREA	61
PAINT-STORAGE	P-DOOR	36
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233
TOOL-ROOM	BOOTH-1	231

CHANGILL WAS EMILENTED LICEN

300TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-1 800TH-1	POUP POUP POUP POUP POUP POUP POUP POUP	THINNER-STORAGE	TOOL-ROOM TOOL-R
BOOTH-3 BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-6 P-CLEANING P-MIXING LOCKER-AREA	BOOTH-5 BOOTH-2 BOOTH-4 BOOTH-6 BOOTH-6 P-CLEANING P-KIXING LOCKER-AREA FLAM-LIQUID TABLE FAINT-AREA P-DOOR	BOUTH-S BOOTH-S BOOTH-2 BOOTH-4 BOOTH-6 P-CLEANING P-MIXING LOCKER-AREA FLAM-LIQUID TABLE PAINT-AREA P-DOGR BOOTH-1 BOOTH-1	EGOTH-3 BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-6 P-CLEANING P-MIXING LOCKER-AREA FLAM-LIQUID TABLE PAINT-AREA P-DOOR POWER BOOTH-1
1 대 대 대 대 대 대 대 대 대 1 표 대 대 대 대 대 대 대	5 대 2 전 2 전 2 전 2 전 2 전 2 전 2 전 2 전 2 전 2	\$ 12 12 13 13 13 13 13 13 14 14 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

ROOTH-1	· FLAM-LIGUID	41
ROOTH-1	TABLE	37
	PAINT-AREA	21
ROOTH-1	r-noor	17
B00TH-1		
B00TH-3	B00TH-5	. 18
B00TH-3	B00TH-2 .	29
BOOTH-3	BOOTH-4	23
BOOTH-3	BOOTH-6	26
BOOTH-3	P-CLEANING	26
BOOTH-3	P-MIXING	11
	LOCKER-AREA	21
BOOTH-3	FLAM-LIQUID	29
BOOTH-3	· - · · · · · · · · · · · · · · · · · · ·	26
B00TH-3	TABLE	
F00TH-3 -	PAINT-AREA	15
BOOTH-3	P-DOOR	29
B00TH-5	BOOTH-2	33
BOOTH-5	₽00TH−4	· 2á
BOOTH-5	B00TH-6	23
BOOTH-5	P-CLEANING	30
	P-MIXING	20
8007H-5	LOCKER-AREA	ió
B00TH-5		22
B00TH-5	FLAM-LIQUID	
B00TH-5	TABLE	19
B00TH-5	PAINT-AREA	17
300TH-5	P-DOOR	37
F00TH-2	BOOTH-4	18
BOOTH-2	B00TH-6	28
800TH-2	P-CLEANING	13
ROOTH-2	F-MIXING	24
B00TH-2	LOCKER-AREA	34
,	FLAM-LIQUID	32
BOOTH-2	TABLE	33
BOOTH-2		21
BOOTH-2	PAINT-AREA	
BOOTH-2	P-000R	17
BOOTH-4	BOGTH−6	13
BOOTH-4	P-CLEANING	11
FOOTH-4	9AIXIM-9	23
BOOTH-4	LOCKER-AREA	22.
800TH-4	FLAM-LIQUID	20
BOOTH-4	TABLE	21
	PAINT-AREA	17
ROOTH-4	F-2008	20
BOOTH-4		
6-HT003	P-CLEANING	21
B00TH−6	P-MIXING	29
B00TH-6	LOCKER-AREA	15
BOOTH-6	FLAM-LIQUID	9
6-HT003	TABLE	11

ROCTH-6	PAINT-AREA	13
B00TH-6	P-DOOR	38
F-CLEANING	P-MIXING	24
P-CLEANING	LOCKER-AREA	29
P-CLEANING	FLAM-LIQUID	26
F-CLEANING	TABLE	27
P-CLEANING	PAINT-AREA	18
F-CLEANING	P-1:00R	23
P-MIXING	LOCKER-AREA	26
F-MIXING	FLAM-LIQUID	32
P-MIXING	TABLE	29
P-MIXING	PAINT-AREA	18
P-MIXING	P-ROOR	23
*	FLAM-LIGUID	14
LOCKER-AREA		} -
LOCKER-AREA	TABLE	19
LOCKER-AREA	PAINT-AREA	- ·
LOCKER-AREA	P-DOGR	43
FLAM-LIQUID	TABLE	Q
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	P-DOOR	46
TABLE	Paint-Area	19
TABLE	F-000R	45
·PAINT-AREA	P-DOOR	27

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THINNER-STORAGE

	THIME S		
	B00TH-4B00TH	-3	; ;
	P-CLEANING	:	
!		ii	TOOL-ROOM
TABLE!		 ! !	!!!
INDEE:		ii	• •
1 1 1		ii	
1 1 1		11	
: : : 		11	
: : : 	-	ii	
: : : LOCKERS	PAINT-AREA	F-DOOR	
	PHIMI-HNER	- 100K	1 !
1 1 1	(X)	11	: :
!!!!	(A)	!!	PAINT-STORAGE
!!!!		11	I I
!!!		!!	: :
;		!!	
:	: :	:: ::	: :
!	: 		FAINT-OFFICE
POOTU C			LHIMI-OLLICE
400 i H-2	BOOTH-3BOOTH		: :
		POWER	
Name	Location		Rods/Fras/PT
1101116			
WORKFLACES:	•		
FAINT-OFFICE	65,0	6,5	
FAINT-STORAGE	65,5	6,5	
TOOL-ROOM	66,15	5,5	
THINNER-STORAGE	35,21	10,1	
FOWER	46,0	4,1	
BOOTH-1	35,1	10,1	
B00TH-3	17,1	10,1	
B00TH-5	5,1	10,1	
B00TH-2	35,19	10,1	
B00TH-4	17,19	10,1	
BOOTH-6	5,19	10,1	
F-CLEANING	27,17	8,3	
F-MIXING	27,1	8,3	
LOCKERS	0,5	2,10	
FLAM-LIQUID	0,17	2,2	
TABLE	0,15	3,2	
PAINT-AREA	5,2	45,16	
P-DOCK	50,1	1,18	
. 5001	24/1		

TOOLS:		
STICK	P-CLEANING	
GLOVES	P-CLEANING	
SCREEN	F-CLEANING	
CRESENTWRENCH	GP	
SCREWDRIVER	OP	
FLIERS	OP	
RAG	OF:	
OBJECTS:		
PAINT	PAINT-STORAGE	
· BUTTON	POWER	
LEVER	BCOTH-6	FRAG
NOZZLE	B00TH-6	FRAG
WOODEN-BUCK	ò-HT00ã	
2X4-BOARD	BOOTH-6	
AIRHOSE	P-CLEANING	FRAG
PAINTCOVER	P-CLEANING	
WINGNUTS	F-CLEANING	FRAG
PAINT-POT	P-CLEARING	
COVER	F-CLEANING	
PAINTCAN	P-CLEANING	FRAG
PAINTCAN-1	F-CLEANING	-
PAINTCAN-2	P-CLEANING	
SCREENTANK	P-CLEANING	
THINNERTANK	P-MIXING	
HIXCAN	F-MIXING	
SPRAY-TIP	P-MIXING	
THINNERPAIL	P-MIXING	
SPRAYGUN	P-MIXING	FRAG
SCREW	F-MIXING	FRAG
FILTER-CAP	P-MIXING	
FILTER	· P-MIXING	
INNER-FILTER	P-MIXING	
	P-MIXING	
SYPHON-TUBE	F-MIXING	
S-HOLDER	F-MIXING	FRAG
RAG-1	P-MIXING	7 11.10
DOLLY	F-MIXING	
FILL-TUBE		
AIRMIXER	F-MIXING	
COVERALLS	LOCKERS	
4'X8'-PANEL	TABLE	
FARTS-BOX	TABLE	
FARTS .	PAINT-AREA	
OPERATORS:		
OP OP	PAINT-ARFA	25,8

PAINT-AREA

0P

25,8 B

From	To	Siers
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PAINT-OFFICE	#00TH-3	165
PAINT-OFFICE	B00TH-5	167
PAINT-OFFICE	BOOTH-2	127
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PAINT-OFFICE	BOOTH-6	163
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PAINT-OFFICE	F-MIXING	153
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FAINT-OFFICE	FLAM-L(RUID	170
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PAINT-OFFICE	PAINT-ARCA	153
PAINT-OFFICE	P BUOR	120
PAINT-STORAGE	TOOL-ROOM	203
PAINT-STORAGE	THINNER-STORAGE	53
PAINT-STORAGE	POWER	63
PAINT-STORAGE	BOOTH-1	61
PAINT-STORAGE	BOOTH-3	63
PAINT-STORAGE	B00TH-5	75
PAINT-STORAGE	BOOTH-2	43
PAINT-STORAGE	B00TH-4	59
PAINT-STORAGE	B00TH-6	73
PAINT-STORAGE	F-CLEANING	49
PAINT-STORAGE	F-HIXING	55
PAINT-STORAGE	LOCKERS	77
PAINT-STORAGE	FLAM-LIQUID	· 75
PAINT-STORAGE	TABLE	76
PAINT-STORAGE	FAINT-AREA	61
FAINT-STORAGE	P-D08R	36.
TOOL-ROOM	THINNER-STORAGE	217
TOOL-ROOM	POWER	233
TOOL-ROOM	BOOTH-1	231
TOOL-ROOM	BOOTH-3	237
TOOL-ROOM	B00TH-5	. 255
TOOL-ROOM	B00TH-2	219
TOOL-ROOM	BGOTH-4	231
TOOL-ROOM	9-HT004	250
TOOL-ROOM	P-CLEANING	225

TOOL-ROOM	· P-MIXING	233
TOOL-ROOM	LOCKERS	263
TOOL-ROOM	FLAM-LIQUID	261
TGGL-ROOM ·	TABLE	262
TOOL-ROOM	Paint-Area	233
TOOL-ROOM	P-DOOR	236
THINNER-STORAGE	POWER	36
THINNER-STORAGE	BOOTH-1	38
THINNER-STORAGE	BOOTH-3	4 5
THINNER-STORAGE	BOOTH-5	55
THINNER-STORAGE	BOOTH-2	26
THINNER-STORAGE	BOOTH-4	, 40
THINNER-STORAGE	B00TH-6	47
THINNER-STORAGE	P-CLEANING	33
THINNER-STORAGE	P-MIXING	37
THINNER-STORAGE	LOCKERS	58
THINNER-STORAGE	FLAM-LIQUID	56
THINNER-STORAGE	TABLE	. 57
THINNER-STORAGE	PAINT-AREA	3ేర
THINNER-STORAGE	P-BOOR	28
POWER	₽GOTH-1	14
POWER	BGOTH-3	29
POWER	FCOTH-5	39
POWER	B00TH-2	. 27
POWER	BOOTH-4	33
POWER	BOOTH-6	43
POWER	P-CLEANING	30
POWER	P-MIXING	. 21
POWER	LOCKERS	44
POWER	FLAM-LIQUID	47
POWER	TABLE	46
POWER	PAINT-AREA	28
POWER	P-100R	15
B00TH-1	BOOTH-3	18
BOOTH-1	600TH-5 `	26
BOOTH-1	B00TH-2	23
B00TH-1	BGOTH-4	29
BOOTH-1	BOOTH-6	33.
BOOTH-1	F-CLEANING	25
BOOTH-1	F-MIXING	14
BOOTH-1	LOCKERS	35
BOOTH-1	FLAM-LIQUID	41
BOOTH-1	TABLE	37
BOOTH-1	FAINT-AREA	21
B00TH-1	P-DCOR	17
BOOTH-3	BCOTH-5	18
E-H1003	B00TH-2	. 29

BOOTH-5 BOOTH-5 BOOTH-5 BOOTH-5 BOOTH-5 BOOTH-5 BOOTH-2 BOOTH-2 BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-4 BOOTH-4 BOOTH-4 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6 BOOTH-6	\$007H-3 \$007H-3 \$007H-3 \$007H-3 \$007H-3 \$007H-3 \$007H-3 \$007H-3
BOOTH-2 BOOTH-4 BOOTH-4 BOOTH-4 P-CLEANING P-MIXING LOCKERS FLAM-LIQUID TABLE PAINT-AREA P-DOOR BOOTH-6 P-KIXING LOCKERS FLAM-LIQUID TABLE PAINT-AREA P-DOOR BOOTH-6 P-KIXING LOCKERS FLAM-LIQUID TABLE PAINT-AREA P-DOOR P-MIXING LOCKERS FLAM-LIQUID TABLE FAINT-AREA P-DOOR P-MIXING LOCKERS FLAM-LIQUID TABLE TABLE TABLE TABLE	BOOTH-4 BOOTH-6 F-CLEANING F-KIXING LOCKERS FLAM-LIQUID TABLE FAINT-AREA F-DOOR
22 22 23 24 24 25 26 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28	ह्य अस्य कृत सम्बद्ध इ.स. १५ व्या सम्बद्ध

F-CLEANING	PAINT-AREA	13
P-CLEANING	P-DOOR	23
P-MIXING	LOCKERS	25
P-KIXING	FLAM-LIQUID	. 32
F-MIXING	TARLE	29
P-MIXING	PAINT-AREA	18
P-MIXING	P-100R	23
LOCKERS	FLAM-LIQUID	14
LOCKERS	TABLE	9
LOCKERS	PAINT-AREA	19
LOCKERS	F-IOOR	43
FLAM-LIQUID	TABLE	9
FLAM-LIQUID	PAINT-AREA	20
FLAM-LIQUID	F-DOOR	46
TABLE	PAINT-AREA	19
TABLE	P-DOOR	45
PAINT-AREA	P-DOCR	27

- 4.2 DEPARTMENT OR COST CENTER LAYOUTS
- 4.3 MATERIAL FLOW

BECTION 5 PROCESS DATA

- 5.1 DERIVATION OF PROCESS TIMES
- 5.2 TECHNICAL PROCESSES
- 5.3 TOOL LIFE

SECTION 6 MANUAL METHODS

- 486. TAFE (MAKE READY) SECTION FOR FAINTING WITH MASKING TAFE AT FAINTING AREA
 - PER 1 OFG: 1 27-APR-83
 - MASK AREA NOT TO BE PAINTED. MULTIPLOBY THE NO OF EDGES, BULMHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.
 - * AVERAGE 4' LENGTH OF TAPE APPLIED
 - OF BEGINS AT PAINT-AREA
 - 1 MOVE TAPE FROM TABLE TO OP
 - 2 GET+MANIPULATE TAPE FROM OF TO OP
 - 3 POSITION TAPE FROM OF TO SECTION
 - 4 TURN WALK 3 STEPS TAPE AT SECTION AND ALIGN F 3
 - 5 PRESS WALK 3 STEPS TAPE AT SECTION F 3
 - 6 MANIFULATE TAPE AT SECTION
- 689. (SET-UP) WORK TABLE IN FAINT AREA AT PAINT SHOP PER 1 OFG: 1 18-APR-83 SETUP TABLE FOR SMALL PARTS OF BEGINS AT PAINT-AREA
 - 1 MOVE WOODEN-BUCK FROM BOOTH-6 TO FAINT-AREA F 3
 - 2 FLACE 2X4-BOARD FROM BOOTH-6 TO PAINT-AREA F 3
 - 3 PLACE 4'X8'-PANEL FROM TABLE TO PAINT-AREA F 2
- 691. (MAKE READY) OPERATOR ON GLOVE AT (PAINT-AREA
 - FER 1 0F8: 1 13-AFR-83
 - GLOVES ARE WORN ONLY DURING PAINTING AND CLEANUP OF PAINTING EQUIPMENT
 - OF REGINS AT PAINT-AREA
 - 1 WALK TO F-CLEANING
 - 2 REMOVE GLOVE FROM P-CLEANING TO OF F 2
 - 3 MANIPULATE GLOVE AT OF F 2

- 672. (SET-UP) OPERATOR FOR PAINTING AT PAINT-AREA PER 1 OFG: 1 03-MAR-63 AD SUB-OF 343 FROM ELECTRIC SHOP OP BEGINS AT P-CLEANING
 - 1 POSITION MASK FROM TABLE TO OP 2 OPERATE MASK AT OP F 2
- 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA
 PER 1 OFG: 1 11-AUG-83
 GET READY FOR BLASTING
 OP BEGINS AT BLASTING
 - 1 OPEN LOCKER AT LOCKER-AREA
 - 2 GET+PLACE WITH BEND COVERALLS FROM LOCKER TO OP
 - * 3 HOLD+MANIPULATE COVERALLS AT OF (PUT ON LEGS) F 2
 - 4 FULL COVERALLS AT OF AND ADJUST
 - 5 HOLD+HANDLE COVERALLS AT OF AND ADJUST (PUT ON ARMS) F 2
 - 6 GET+PULL ZIPPER AT OP
- 745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER PER 1 OFG: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA
 - 1 PLACE EARPLUGS TO OF
 - 2 OPEN BOX AT LOCKER
 - 3 GET+MANIPULATE EARPLUGS AT OP F 2
 - 4 HOLD+POSITION EARPLUGS FROM OF TO OF F 2
- 761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER PER 1 OFG: 1 11-AUG-83 OP BEGINS AT LOCKER-AREA
 - 1 GET+POSITION LINER TO GP
 - 2 HOLD+MANIFULATE LINER AT OF AND ADJUST FF 4 (4 5 6)
 - 3 PULL STRAP AT OP AND ADJUST

- 710. SETUP (ATTACHMENT) SPRAYGUN FOR PAINTING AT PAINT AREA FER 1 OFG: 1 06-JUN-83
 SETUP AIR SPRAYGUN FOR PAINTING WITH CUP
 OP BEGINS AT PAINT-AREA
 - # 1 MAN OPERATION
 - 1 GET+MANIPULATE AIRHOSE AT F-CLEANING FF 12 (4)
 - 2 GET+MOVE SPRAYGUN FROM LOCKERS TO P-CLEANING
 - 3 GET+SLIDE AIRHOSE AT P-CLEANING (HOOKUP AIR)
 - 4 MOVE SPRAYGUN AIRHOSE FROM P-CLEANING TO PAINT-AREA
- 711. SETUP PAINT POT FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83
 SETUP PAINTING POT FOR AIR SPRAYING OP BEGINS AT P-CLEANING
 - * 1 MAN OPERATION
 - 1 POSITION CRESENTWRENCH TO PAINT-POT
 - 2 HOLD+LOOSEN 4 WINGNUTS AT P-CLEANING 4 ARM-STROKES USING CRESENTWRENCH AND ASIDE
 - 3 LOOSEN 4 WINGHUTS AT P-CLEANING 8 WRIST-TURN USING HAND
 - 4 GET+MANIPULATE SCREEN AT F-CLEANING
 - 5 HOLD+PLACE SCREEN TO PAINT-POT
 - 6 GET+HANDLE PAINTCAN AT PAINT-FOT PT 60 S
 - 7 HOLD+PLACE PAINTCAN TO P-CLEANING
 - 8 PLACE SCREEN TO SCREENTANK
 - 9 OPEN+SHUT COVER AT PAINT-FOT
 - 10 FASTEN 4 WINGNUTS AT P-CLEANING 8 WRIST-TURNS USING HAND
 - 11 FASTEN 4 WINGNUTS AT F-CLEANING 6 ARM-STROKES USING CRESENTWRENCH AND ASIDE
 - 12 POSITION AIRHOSE FROM BOOTH-6 TO P-CLEANING (ATTACH AIRHOSE)

713. (TRANSPORT) PAINT ON DOLLY TO PAINT AREA PER 1 OFG: 1 03-JUN-83
 FAINT STORED OUTSIDE
OF BEGINS AT F-CLEANING
* 1 MAN OPERATION

- 1 GET+MOVE DOLLY THROUGH DOOR TO PAINT-STORAGE THROUGH DOOR
- 2 WAIT 2 M (LOOK FOR PAINT)
- 3 GET+POSITION PAINTCAN FROM PAINT-STORAGE TO DOLLY
- 4 GET+MOVE DOLLY PAINTCAN FROM PAINT-STORAGE THROUGH DOOR TO P-MIXING THROUGH DOOR
- 714. MIX (MAKE READY) EPOXY PAINT IN FAIL AT PAINT MIXING PER 1 OFG: 1 03-JUN-83
 MIX TWO PART PAINT
 OF BEGINS AT P-MIXING
 * 1 MAN OPERATION
 - 1 LOOSEN PAINTCOVER 8 WRIST-STROKES USING SCREWDRIVER AND ASIDE
 - 2 PLACE AIRMIXER WALK 5 STEPS TO THINNERTANK F 3
 - 3 HOLD+GPERATE AIRMIXER AT THINNERTANK PT 5 S F 3
 - 4 HOLD+OPERATE AIRMIXER AT OF FT 5 S F 3
 - 5 HOLD+MOVE AIRMIXER TO F-MIXING (FUT IN FAINT) F 3
 - 6 HOLD+OPERATE AIRMIXER AT F-MIXING PT 20 S (MIX FAINT) F 3
 - 7 HOLD+PLACE AIRMIXER TO THINNERTANK F 3
 - 8 HOLD+OPERATE AIRMIXER AT THINNERTANK PT 5 S F 3
 - 9 HOLD+PLACE AIRMIXER TO P-MIXING F 3
 - 10 GRIP PAINTCAN AT F-MIXING USING FLIERS AND HOLD
 - 11 MOVE PAINTCAN-1 TO F-MIXING SIMO
 - 12 HOLD+REMOVE PAINTCAN-1 TO GP
 - 13 HOLD+MANEUVER PANITCAN-1 AT MIXCAN AND ASIDE FT 10 S
 - 14 MOVE PAINTCAN-2 TO F-MIXING SIMO
 - 15 GET+MANEUVER PAINTCAN-2 AT MIXCAN AND ASIDE PT 10 S
 - 16 GET+FOSITION FAINTCAN-1 TO FAINTCAN-2
 - 17 GET+POSITION PAINTCOVER TO PAINTCAN-2

HANGAL METHODS

- 715. MIX (MAKE READY) PAINT IN MIX-CAN AND STRAIN INTO PAINTEUN AT PAINT AREA
 - PER 1 OFG: 1 03-JUN-63
 - MIXING PAINT FOR AIR SPRAYGUN WITH CUP
 - OF BEGINS AT F-CLEANING
 - * 1 MAN OPERATION
 - 1 LOOSEN PAINTCOVER 8 WRIST-STROKES USING SCREWDRIVER AND ASIDE
 - 2 OPERATE STRICK AT PAINTCAN-1 AND ASIDE STICK PT 60 S
 - 3 GRIP PAINTCAN-1 USING PLIERS AND HOLD
 - 4 HOLD+REMOVE PAINTCAN-1 TO OF
 - 5 HOLD+MANEUVER F"RAINTCAN-1 AT MIXCAN AND ASIDE PT 10 S
 - 6 OPERATE STICK AT FAINTCAN-2 AND ASIDE STICK PT 60 S
 - 7 GET+MANEUVER PAINTCAN-2 AT MIXCAN AND ASIDE PT 10 S
 - 8 GET+POSITION PAINTCAN-1 TO PAINTCAN-2
 - 9 GET+POSITION PAINTCOVER TO FAINTCAN-2
 - 10 OPERATE STICK AT MIXCAN PT 60 S
 - 11 HOLD+TOSS STICK
- 716. CLEAN PAINTGUN IN PAINT AREA WITH THINNER AT PAINT MIXING PER 1 OFG: 1 03-JUN-83
 - CLEAN AIRLESS SPRAYER
 - OP BEGINS AT P-MIXING
 - * 1 MAN OPERAATION
 - 1 TURN WALK 3 STEPS WITH BEND LEVER AT P-MIXING (AIR OFF) F 3
 - 2 LODSEN SPRAY-TIP 8 WRIST-TURNS USING CRESENTWRENCH AND ASIDE
 - 3 WALK 3 STEPS WITH BEND RAG TO THINNERPAIL
 - 4 WIPE FILL-TUBE 5 SQ.FT. USING RAG AND ASIDE
 - 5 PLACE WITH BEND FILL-TUBE TO THINNERPAIL
 - 6 TURN WALK 3 STEPS WITH BEND LEVER AT F-MIXING (AIR ON) F 2
 - 7 OPERATE WALK 5 STEPS WITH BEND SPRAYGUN AT P-MIXING
 - 8 GET+GRIP SPRAY-TIP USING FLIERS AND ASIDE
 - 9 LOOSEN SPRAY-TIP 10 WRIST-TURNS USING FINGERS AND HOLD
 - 10 LOOSEN SCREW AT SPRAY-TIP 10 WRIST-TURNS USING SCREWDRIVER AND ASIDE
 - 11 MANIPULATE WALK 3 STEPS WITH BEND SPRAY-TIP AT THINNERPAIL PT 120 S
 - 12 FASTEN SCREW AT SPRAY-TIP 12 WRIST-TURNS USING SCREWDRIVER AND ASIDE
 - 13 PLACE SPRAY-TIP TO OF AND HOLD
 - 14 OPERATE SPRAYGUN AT P-MIXING (RELEASE PRESURE) PT 10 S
 - 15 LOOSEN WALK 5 STEPS WITH BEND FILTER-CAP 20 WRIST-TURNS USING FINGERS PF 2 (6.7.8) F 2
 - 16 REMOVE FILTER FROM FILTER-CAP TO OP
 - 17 FASTEN WITH BEND FILTER-CAP 20 WRIST-TURNS USING FINGERS FF 2 (6 7

- 8) F 2
- 18 MANIPULATE WALK 3 STEPS AIRHOSE AT P-MIXING
- 19 OPERATE WITH BEND SPRAYGUN AT F-MIXING (CLEAN FILTER) PT 90 S
- 20 REMOVE INNER-FILTER TO OF
- 21 OPERATE WITH BEND SPRAYGUN AT P-MIXING (CLEAN INNER FILTER) PT 70 S
- 22 PLACE INNER-FILTER TO FILTER
- 23 PLACE FILTER FROM OF TO FILTER-CAP
- 24 FOSITION WALK 3 STEPS AIRHOSE FROM P-MIXING TO OF F 16
- 25 HOLD+PLACE AIRHOSE FROM OP TO SPRAYGUN AT P-MIXING
- 26 PLACE WITH BEND SYPHON-TUBE TO S-HOLDER
- 717. REMOVE SPRAYGUN FOR CLEANING AT PAINT CLEANING PER 1 OFG: 1 03-JUN-83
 CHANGE SPRAYGUN TYPE FOR HARD TO REACH AREAS OP BEGINS AT P-CLEANING
 - * 1 MAN OPERATION
 - 1 LOOSEN NUT 2 WRIST-STROKES USING CRESENTWRENCH AND ASIDE F 2
 - 2 LOOSEN NUT 10 WRIST-TURNS USING FINGERS F 2
 - 3 FASTEN NUT 10 WRIST-TURNS USING FINGERS F 2
 - 4 FASTEN NUT 2 WRIST-STROKES USING CRESENTWRENCH AND ASIDE F 2
- 721. REMOVE TAPE ON SECTION AT PAINT AREA
 PER 1 OFG: 1 03-JUN-83
 MULTIPLY BY NO. OF TAPED AREAS
 OP BEGINS AT PAINT-AREA
 * 1 MAN OPERATION
 - 1 GET+REMOVE TAPE FROM SECTION TO OF
 - 2 HOLD+MANIPULATE TAPE FROM OF TO OF
 - 3 HOLD+TOSS TAPE FROM OF TO PAINT-AREA

- 733. (FAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA PER 1 OFG: 1 22-JUN-83
 - * MULTIPLY BY NO. OF FREQUENCIES
 - * CAN BE 1 OR 2 HAN OPERATION
 - OF BEGINS AT PAINT-AREA
 - 1 GET+MOVE WITH KNEEL SPRAYGUN FROM PAINT-AREA TO PAINT-AREA
 - 2 HOLD+OPERATE SPRAYGUN AT PAINT-AREA
- 734. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA PER 1 OFG: 1 22-JUN-63
 - * MULTIFLY BY NO. OF FREQUENCIES
 - * CAN BE 1 OR 2 MAN OPERATION
 - OF BEGINS AT FAINT-AREA
 - 1 GET+MOVE WITH BEND SPRAYGUN FROM PAINT-AREA TO PAINT-AREA
 - 2 HOLD+OPERATE SPRAYOUN AT FAIRT-AREA
- 737. (CLEAN) OBJECT IN PAINT OR BLAST BOOTH AT PAINT 1 BLAST BUILDING PER 1 OFG: 1 06-JUL-83
 BLOW OFF GRIT 1 DIRT WITH AIRHOSE
 OF BEGINS AT PAINT-AREA
 - 1 GET+MOVE AIRHOSE FROM P-CLEANING TO PAINT-AREA
 - 2 TURN LEVER AT PAINT-AREA (ON)
 - 3 TURN LEVER AT PAINT-AREA (OFF)
 - 4 GET+MOVE AIRHOSE FROM FAINT-AREA TO P-CLEANING

- 736. (REMOVE) COVEALLS ON OPERATOR AND PLACE AT LOCKER
 - PER 1 OFG: 1 23-JUN-83
 - * REMOVE COVERALLS AT END OF BLASTING
 - OP BEGINS AT LOCKER-AREA
 - 1 FULL ZIPPER AT OF
 - 2 GET+MANIPULATE TAPE AT OP (TAKE OFF TAPE) F 2
 - 3 GET+MANEUVER COVERALLS AT OP (TAKE ARMS OUT) F 2
 - 4 GET+PUSH WITH BEND COVERALLS AT OF
 - 5 GET+MANIPULATE COVERALLS AT OF AND ADJUST (TAKE LEGS OUT) F 2
 - 6 PICKUP COVERALLS TO OF
 - 7 HOLD+MANIPULATE COVERALLS AT OF (SHAKE OUT COVERALLS)
 - 8 OPEN+SHUT LOCKER AT LOCKER-AREA
 - 9 HOLD+PLACE COVERALLS FROM OF TO LOCKER
- 686. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA
 - PER 1 OFG: 1 27-AFR-83
 - MASK AREA NOT TO BE PAINTED. NULTIPLEBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.
 - * AVERAGE 4' LENGTH OF TAPE APPLIED
 - OP BEGINS AT PAINT-AREA
 - 1 MOVE TAPE FROM TABLE TO OP
 - 2 GET+MANIPULATE TAPE FROM OP TO OP
 - 3 POSITION TAPE FROM OF TO SECTION
 - 4 TURN WALK 3 STEPS TAPE AT SECTION AND ALIGN F 3
 - 5 PRESS WALK 3 STEPS TAFE AT SECTION F 3
 - 6 MANIPULATE TAPE AT SECTION

770. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR PAINTING AT PAINTING AREA CHECK FILTERS IN MASK AND REPLACE IF NECESSARY PER 1 OFG: 1 12-AUG-83 * USED ONLY FOR PAINTING IN PAINTING BOOTH * MULTIPLY BY NO. OF OPERATORS

Combined sub-operation elements

- 742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA
- 671. (MAKE READY) OPERATOR ON GLOVE AT SPAINT-AREA
- 692. (SET-UP) OPERATOR FOR PAINTING AT PAINT-AREA
 - 726. COMBINED SUB-OP

(SET-UP) SPRAYGUN WITH CUP FOR PAINTING AT PAINT AREA
THIS IS FOR PAINTING OF SMALL PARTS AND TOUCH UP GNL*
PER 1 0FG: 1 08-JUN-83

- * 1 MAN OPERATION
- * AD LOC.NO. 713 PRO RATED PER PART

 * AD LOC.NO. 714 PRO RATED PER PART

Combined sub-operation elements

- 710. SETUP (ATTACHMENT) SPRAYGUN FOR PAINTING AT PAINT AREA
- 712, FILL (PAINT) GUN WITH PAINT FOR PAINTING AT PAINT SHOP
- 720. (CLEAN) SPRAYGUN FOR PAINTING AT PAINT AREA

727. COMBINED SUB-OF

(SET-UP) PAINT POT FOR PAINTING AT PAINT AREA
THIS INCLUDES CLEANING AND FILLING WITH PAINT
FER 1 OFG: 1 OS-JUN-83
1 MAN OPERATION

Combined sub-operation elements

- 711. SETUP PAINT POT FOR PAINTING AT PAINT AREA
- 718. (CLEAN) PAINT POT FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83
 OP BEGINS AT P-CLEANING
 * 1 MAN OPERATION
 - 1 TURN LEVER AT PAINT-POT (AIR OFF) F 2
 - 2 TURN LEVER AT PAINT-POT (PAINT OFF) F 2
 - 3 PLACE PAINT-COVER FROM P-CLEANING TO THINNER
 - 4 PLACE RAG TO THINNER
 - 5 WIPE PAINT-POT 3 SQ.FT. USING RAG AND ASIDE
 - 6 OPERATE THINNER AT PAINT-POT (POUR THINNER)
 - 7 PLACE PAINTCOVER TO PAINT-FOT
 - 8 TURN LEVER AT PAINT-FOT (AIR ON)
 - 9 OPERATE SPRAYGUN AT PAINT-POT PT 120 S
- 732. (FAINT) (OBJECT) IN FAINT BOOTH AT PAINTING AREA FER 1 OFG: 1 22-JUN-83
 - * MULTIFLY BY NO. OF FREQUENCIES
 - * CAN BE 1 OR 2 MAN OPERATION
 - OF BEGINS AT FAINT-AREA
 - 1 GET+MOVE WITH 10 STEPS SPRAYGUN FROM FAINT-AREA TO PAINT-AREA
 - 2 HOLD+OPERATE SPRAYGUN AT PAINT-AREA

- 720. (CLEAN) SPRAYOUN FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83 OF BEGINS AT P-CLEANING
 - * 1 MAN OPERATION
 - 1 LOOSEN SPRAY-TIP 20 WRIST-TURNS USING FINGERS
 - 2 REMOVE SPRAY-TIP TO OF
 - 3 PLACE SPRAY-TIP SPRAYGUN TO THINNER -
 - 4 WIFE SPRAYGUN AT P-CLEANING 1 SR.FT. USING RAG AND ASIDE
 - 5 WIFE SPRAY-TIP 1 SQ.FT. USING RAG AND ASIDE
 - 6 WIPE AIRHOSE AT P-CLEANING WALK 3 STEPS 1 SQ.FT. USING RAG AND ASIDE F 15
- 687. (MOVE) PARTS-BOX FOR PAINTING TO PAINT-AREA
 PER 1 OFG: 1 18-APR-83
 MULTIPLY BY NO OF BOXES, CONTAINERS, OR SEPERATE PIECES
 OF BEGINS AT PAINT-AREA
 - 1 GET+MOVE PARTS-BOX FROM TABLE TO PAINT-AREA
- 712. FILL (PAINT) GUN WITH PAINT FOR PAINTING AT PAINT SHOP PER 1 OFG: 1 03-JUN-83
 FOR FILLING PAINT CUP AND ATTACH TO SPRAY GUN OP BEGINS AT P-CLEANING
 * 1 MAN OPERATION
 - 1 OPEN PAINTGUE AT P-CLEANING
 - 2 GET+MANIPULATE SCREEN AT SCREENTANK (CLEAN SCREEN)
 - 3 MOVE SPRAYGUN TO F-CLEANING SIMO
 - 4 HOLD+POSITION SCREEN TO SPRAYGUN
 - 5 GET+HANDLE MIXCAN AT SPRAYGUN PT 30 S
 - 6 HOLD+PLACE MIXCAN TO P-CLEANING
 - 7 PLACE SCREEN TO SCREENTANK AND ASIDE
 - 8 PLACE SPRAYGUN TO SPRAYGUN AND ASIDE
 - 9 GET+WIFE SPRAYGUN 2 SQ.FT. USING RAG AND ASIDE

- 719. (OPEN+CLOSE) PAINT POT FOR FILLING AND CLEANING AT FAINT AREA PER 1 OFG: 1 03-JUN-83
 - AD TO CLEAN OR FILLING PAINT POT SUB-OF
 - OF BEGINS AT F-CLEANING
 - * 1 MAN OPERATION
 - 1 POSITION CRESENTWRENCH TO PAINT-FOT F 2
 - 2 HOLD+LOOSEN 4 WINGNUTS AT P-CLEANING 4 ARM-STROKES USING CRESENTWRENCH AND ASIDE
 - 3 LOOSEN 4 WINGNUTS AT P-CLEANING 8 WRIST-TURNS USING FINGERS
 - 4 FASTEN 4 WINGNUTS AT F-CLEANING 8 WRIST-TURNS USING FINGERS
 - 5 HOLD+FASTEN 4 WINGNUTS AT P-CLEANING 6 ARM-STROKES USING CRESENTWRENCH AND ASIDE

7.1 WORK SHEETS, TITLE SHEETS, TABLES, CHARTS

PAINT ASSEMBLIES IN PAINT BOOTH

Titlesheet Organization List

Move

- 689, (SET-UP) WORK TABLE IN PAINT AREA AT PAINT SHOP FAINT SHOF SETUP TABLE FOR SHALL PARTS
- 714. MIX (MAKE READY) EPOXY PAINT IN FAIL AT. FAINT MIXING MIX TWO PART PAINT
- 686, TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA MASK AREA NOT TO BE PAINTED. MULTIPLOBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.
- 687. (MOVE) PARTS-BOX FOR PAINTING TO PAINT-AREA MULTIPLY BY NO OF BOXES, CONTAINERS, OR SEPERATE PIECES

Operate

719. (OPEN+CLOSE) PAINT POT FOR FILLING AND CLEANING AT PAINT AREA AD TO CLEAN OR FILLING FAINT POT SUB-OF

Prepare

- 691. (MAKE READY) OPERATGR ON GLOVE AT {PAINT-AREA GLOUES ARE WORN ONLY DURING FAINTING AND CLEANUP OF PAINTING EQIOPMENT
- 692, (SET-UP) OPERATOR FOR PAINTING AT FAINT-AREA All SUB-OF 343 FROM ELECTRIC SHOP
- 742, (MAKE READY) FLIT COVERFALLS ON OPERATGR AT LOCKER-AREA GET READY FOR BLASTING
- 745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER
- 761. (MAKE READY) PLACE LINER ON HEAD AT LOCKER
- 710 . SETUP {ATTACHMENT) SPRAYGUN FOR PAINTING AT PAINT AREA

SETUP AIR SPRAYOUN FOR PAINTING WITH CUP

- 711. SETUP PAINT POT FOR PAINTING AT PAINT AREA SETUP PAINTING POT FOR AIR SFRAYING
- 715. MIX (MAKE READY) PAINT IN MIX-CAN AND STRAIN INTO PAINTGUN AT PAINT AREA MIXING PAINT FOR AIR SPRAYGUN WITH CUP
- 716. CLEAN PAINTGUN IN PAINT AREA WITH THINNER AT PAINT MIXING CLEAN AIRLESS SPRAYER
- 770. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR PAINTING AT FAINTING AREA CHECK FILTERS IN MASK AND REPLACE IF NECESSARY

726. COMBINED SUB-OP

(SET-UP) SPRAYGUN WITH CUP FOR PAINTING AT PAINT AREA THIS IS FOR PAINTING OF SMALL PARTS AND TOUCH UP GALT

727. COMBINED SUB-OF

(SET-UP) PAINT POT FOR PAINTING AT PAINT AREA THIS INCLUDES CLEANING AND FILLING WITH PAINT

Surface Treat

- 713. (TRANSPORT) PAINT ON DOLLY TO PAINT AREA PAINT STORED OUTSIDE
- 717. REMOVE SPRAYGUN FOR CLEANING AT PAINT CLEANING CHANGE SPRAYGUN TYPE FOR HARD TO REACH AREAS
- 721, REMOVE TAPE ON SECTION AT PAINT AREA MULTIPLY BY NO. OF TAPED AREAS
- 733, (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA
- 734. (PAINT) (OBJECT) IN FAINT BOOTH AT FAINTING AREA
- 739. (CLEAN) OBJECT IN PAINT OR BLAST BOOTH AT PAINT & BLAST BUILDING BLOW OFF GRIT & DIRT WITH AIRHOSE
- 718. (CLEAN) PAINT POT FOR PAINTING AT PAINT AREA

- 732. (FAINT) (OBJECT) IN FAINT BOOTH AT PAINTING AREA
- 720. (CLEAN) SPRAYGUN FOR PAINTING AT PAINT AREA
- 712. FILL (PAINT) GUN WITH PAINT FOR PAINTING AT PAINT SHOP FOR FILLING PAINT CUP AND ATTACH TO SPRAY GUN

.

7.2 HOW TO CALCULATE TIME STANDARDS

tMOST OPERATION TIME CALUCULATION

DETAIL/UNIT/PART	XXX	REV. LTR/DATE	6/30/83	_
PROCESS/OPER CODE	xx	STANDARD CODE	XX	
PART NAME	SUPPLY DEPT. OFFICE			-
SHIP CLASS	NW	HULL	50	
COST CLASS/J08 #	xx	TRADE	PAINTERS	
GROUP (UNIT/ZONE)	xx	WORK AREA	PAINT BOOTH	
SUB-GROUP	xx	WORKi ZONE	PAINT BOOTH	
SUB-SUB-GROUP	xx	WORK CENTRE	xx	
CREW/MACHINE	xx	ASSET/MACHINE	Exx	
ITEM	XX	SUB-ITEM	xx	
GEN, DRAWING	xx	WORK ORDER	xx	
DET, DRAWING	xx	SHEET	xx	
WORK PACKAGE	xx	APPLICATOR		
OPER. DESCRIPTION	PAINT SUPPLY DEPT, O	FFICE		
			-	_
DATE	12-AUG-83	ISSUE #	1	
Step Method Instr	uction			Freq
~ USED ONLY	PERATOR FOR PAINTING FOR PAINTING IN PAINTII Y NO, OF OPERATORS		770)	01
2 (MAKE READY) 0	FERATOR ON GLOVE	(,	1.2
	TOR FOR PAINTING ADY) SECTION FOR PAIL) NTING WITH MA	(692) S(686)	1.2

5 6 7 8	* AVERAGE 4' LENGTH OF TAPE APPLIED (CLEAN) OBJECT IN FAINT OR BLAST BOOTH BLOW OFF BIRT (TRANSPORT) PAINT ON BOLLY * 1 MAN OPERATION MIX (MAKE READY) EPOXY PAINT IN PAIL * 1 MAN OPERATION MIX (MAKE READY) PAINT IN MIX-CAN AND STRAIN TO PAINTGUN	(7	739) MACH) 713) 714)	.2 1 .5 .5
	# 1 MAN OPERATION			
10	(SET-UP) PAINT POT FOR PAINTING	(7	727)	2
11	* 1 MAN OPERATION (OPEN+CLOSE) PAINT POT FOR FILLING AND CLEAN X 1 MAN OPERATION	NC	G (717)	1.2
12	PAINT	(M	(ACH)	1
13	(PAINT) (OBJECT) IN PAINT BOOTH X MULTIPLY BY NO., OF FREQUENCIES		7 3 2)	2.5
14	.X CAN BE 1 OR 2 MAN OPERATION (PAINT) (OBJECT) IN PAINT BOOTH 4 MULTIPLY BY NO. OF FREQUENCIES	(7	33)	2.5
15	* CAN BE 1 OR 2 MAN OPERATION (PAINT) (OBJECT) IN PAINT BOOTH * MULTIPLY BY NO. OF FREQUENCIES	(734)	1.3
16	\$ CAN BE 1 OR 2 MAN OPERATION REMOVE SPRAYGUN FOR CLEANING X 1 MAN OPERATION	(717)	.1
17	(CLEAN) SPRAYGUN FOR PAINTING X 1 MAN OPERATION	(72())	•1
18	(CLEAN) PAINT FOT FOR PAINTING	(718)	•1
19	X 1 MAN OPERATION REMOVE TAPE ON SECTION X 1 MAN OPERATION	(721)	•5
20	(REMOVE) COVEALLS ON OPRATOR AND PLACE * REMOVE COVERALLS AT END OF BLASTING	(736)	•1

M O S T OPERATION TIME CALCULATION

STEP	SA	FREQ	INTERNAL THU	EXTERNAL TMU	L0C \$
1		0.10		402.	
2 ·	0.00			· 768•	
3 .	0.00			1572.	
	0.00			760.	
5	0.00			230.	
6 MACHINE OPERATION	0.00			18000.	
7	0.00			3257,	
8	0.00			3635.	
7	0.00			8340.	
16	0.00			22584 +	
11	0.00			5112.	
12 MACHINE OPERATION	0.00			46600.	
13	0.00			675.	
14	0.00	2.50		700.	
15	0.00	1.30		234.	
16	0.00	0.10		166.	
17	0.00			403.	
18	0.00			427.	
19	0.00	0.50		90.	
20	0.00	0.10		135.	736
MANUAL TIME(TMU)			0.	49692.	
ACTUAL PROCESS TIME(TMU)			0.	64800.	
FACTORED PROCESS TIME(TMU)			0.		
TOTAL INTERNAL TIME(TMU)	•		0.		

TITLE SHEET USED IN SETTING STANDARD: 0

H O S T OFERATION TIME CALCULATION

•

Engineered Operation Time Calculation

Type of Work	Elemental Time	Percent Allowance	Allowance Time	Standard Time
EXTERNAL MANUAL	0.497		0.000	0.497
ASSIGNED INTERNAL	(0 .)	0 0 0)	0.000)	0.000
PROCESS TIME	0.543		0.000	0.643
STANDARD(HRS,/CYCLE	1.145		0,000	1.145
PIECES PER CYCLE	1			
STANDARD HOURS				1.1

M O S T OPERATION TIME CALCULATION

DETAIL/UNIT/PART	XX .	REV. LTR/DATE	6/30/63	
PROCESS/OPER CODE	XX	STANDARD CODE	XX	-
PART NAME ·	SUPPLY DEPT. ISSUE	ROOM		•
SHIP CLASS	ARS	HULL	50	
COST CLASS/JOB #	XX	TRADE	PAINTERS	
GROUP (UNIT/ZONE)	XX	WORK AREA	PAINT BOOTH	
SUB-GROUP	XX	WORK ZONE	PAINT BOOTH	
SUB-SUB-GROUP	XX	WORK CENTER	XX	
CREW/MACHINE	XX	- ASSET/MACHINE	XX	
ITEM	XX	SUB-ITEM	XX	
GEN. DRAWING	XX	WORK ORDER	XX	
DET. DRAWING	xx	SHEET	XX	
WORK PACKAGE	XX .	APPLICATOR	DK .	
OPER. DESCRIPTION	PAINT SUPPLY DEPT.	ISSUE ROOM IN PA	INT BLDG	
				_
DATE			1	
Step Method Instru	uction			Frea
* USED ONLY F	OPERATOR FOR PAINTI FOR PAINTING IN PAIN Y NO. OF OPERATORS	•••	770)	.2
2 (MAKE READY)	OFERATOR ON GLOVE		691)	3
	CATOR FOR PAINTING	-	692) (84)	3
4 TAPE (MAKE REA	ADY) SECTION FOR PA	THITM BATIN WYS!	086)	1.2

* AVERAGE 4' LENGTH OF TAPE APPLIED

KING TAPE

5	(CLEAN) OBJECT IN PAINT OR BLAST BOOTH		737) NACH)	• á 1
ó	BLOW OFF DIRT			1.2
7	(TRANSPORT) PAINT ON DOLLY	•	713)	i+=
	* 1 MAN OPERATION		-4.	
6	MIX (MAKE READY) EPOXY PAINT IN FAIL	ţ	/14)	1.2
	* 1 MAN OPERATION	 .		
9	MIX (MAKE READY) PAINT IN MIX-CAN AND STR	MIN INC	715)	3
	TO PAINTGUN			
	* 1 MAN OPERATION			
10	(SET-UP) PAINT POT FOR PAINTING	(727)	
	* 1 MAN GPERATION			
	* 719			
11	(OPEN+CLOSE) PAINT POT FOR FILLING AND C	LEANING	G(719)	3
	* 1 MAN OFÉRATION		,	
12	PAINT	(MACH)	
13	(PAINT) (OBJECT) IN PAINT BOOTH	(732)	6.4
	* MULTIPLY BY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
14	(PAINT) (OBJECT) IN FAINT BOOTH	(733)	5.4
	* MULTIFLY BY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
15	(PAINT) (OBJECT) IN FAINT BOOTH	(734)	3.2
	* MULTIPLY BY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
16	REMOVE SPRAYGUN FOR CLEANING	(717)	.2
	* 1 MAN OPERATION	`		
17	(CLEAN) PAINT POT FOR PAINTING	(718)	•2
	* 1 MAN OPERATION	`	/	
18		. (713)	.2
	* 1 MAN OPERATION	`	/	
19	REMOVE TAPE ON SECTION	(721)	1.2
1,	* 1 MAN OFERATION	(. = =)	3.2
20		(736)	.2
	* REMOVE COVERALLS AT END OF BLASTING	`	/	. —

N O S T OPERATION TIME CALCULATION

STEP	SA 	FREQ	INTERNAL Thu	EXTERNAL THU	L0C \$
1	0.00	0.20		804.	
2		3.00		1920.	
2 3 4 5	0.00			3730.	
4	0.00			2304.	
	0.00			690•	
6 MACHINE OPERATION	0.00			21000.	
7	0.00			7817.	
8	0.00			S724.	
9	0.00			20650.	
10	0.00			18820.	
11	0.00			12780.	719
	0.00			66400+	
13	0.00			1728.	
14				1792.	
15	0.00			576.	
16	0.00			336.	
17	0.00			854.	
18	0.00			854.	
19	0.00			216.	
20	0.00	0.20		270.	736
MANUAL TIME(TMU)			. 0.	134957.	
ACTUAL PROCESS TIME(TMU)			0.	174200.	
FACTORED PROCESS TIME(TMU)	•		0.		
TOTAL INTERNAL TIME(TMU)			0.		

TITLE SHEET USED IN SETTING STANDARD: 0

N 0 S T OPERATION TIME CALCULATION

Ensineered Operation Time Calculation

Type of Work		mental ime	Perce Allowa		Allowan Time	ice	Standa Time	rd
EXTERNAL MANUAL		0.853			0.000		0.853	
ASSIGNED INTERNAL	(0.000)	()	(0.000)	(0.000)	
PROCESS TIME		1.094			0.000		1.074	
STANDARD(HRS./CYCLE	;	1.947			. 0.0	00	1.9	747
PIECES PER CYCLE		1						ж
STANDARD HOURS							:	?

M O S T OPERATION TIME CALCULATION

DETAIL/UNIT/PART	XXX .	REV. LTR/DATE	6/30/83	_
PROCESS/OPER CODE	xx	STANDARD CODE	XX	_
PART NAME	ROPE STOWAGE BIN 3'X	9′X9K		-
_	•	\.L'		
SHIP CLASS	ARS	HULL	50	
COST CLASS/JOB #	xx	TRADE	PAINTERS	
GROUP (UNIT/ZONE)	XX	WORK AREA	PAINT BOOTH	
SUB-GROUP	XX	WORK ZONE	PAINT BOOTH	
SUB-SUB-GROUP	XX	WORK CENTER	XX	
CREW/MACHINE	xx	ASSET/MACHINE	XX	
ITEM	XX	SUN-ITEM	XX	
GEN. DRAWING	xx	WORK ORDER	XX	
DET. DRAWING	xx	SHEET	XX	
WORK PACKAGE	XX -	APPLICATOR	DK	
OPER. DESCRIPTION	PAINT ROPE STOWAGE B	IN 3'X9'X9' IN	FAINT BLDG	
				_
DATE	12-AUG-83	ISSUE #	1	_
Step Method Instr	uction			Frea
* USED ONLY	OPERATOR FOR PAINTIN FOR PAINTING IN PAINT		(770)	.03
2 (MAKE READY) 3 (SET-UP) OPE	Y NO. OF OPERATORS OPERATOR ON GLOVE RATOR FOR PAINTING ADY) SECTION FOR PAI		(671) (672) (686)	•45 •45 •18

* AVERAGE 4' LENGTH OF TAPE APPLIED

STANDARD TIME CALCULATION

5	(CLEAN) OBJECT IN PAINT OR BLAST BOOTH	(739)	.07
6	JO'9WBLOW OFF DIRT	(MACH)	1
7	(CLEAN) OBJECT IN PAINT OR BLAST BOOTH JO'9WBLOW OFF DIRT (TRANSPORT) PAINT ON DOLLY * 1 MAN OPERATION	(713)	.13
•	* 1 MAN OPERATION			
8		(714)	.18
•	* 1 MAN OPERATION			
9	MIX (MAKE READY) PAINT IN MIX-CAN AND STRAI	N INC	715)	.45
٠	TO PAINTGUN			
	* 1 MAN OPERATION			
10	(SET-UP) PAINT POT FOR PAINTING	(727)	.45
	. * 1 MAN OPERATION			
11	(OPEN+CLOSE) PAINT POT FOR FILLING AND CLEA) DNIN	719)	.43
	* 1 MAN OPERATION		•	
12	PAINT	- (MACH)	1
13	PAINT (OBJECT) IN PAINT BOOTH	(732)	•96
	* MULTIPLY BY NO. OF FREQUENCIES			
	4 CAN DE 4 CD O MAN OPERATION			
14	(PAINT) (OBJECT) IN PAINT BOOTH	(732)	.96
	* MULTIPLY BY NO. OF FREQUENCIES			
	TO DAY DE 4 OF O MAY OFFDATTON			
15	(PAINT) (OBJECT) IN PAINT BOOTH	(734)	.48
	* MULTIPLY BY NO. OF FREQUENCIES			
	* CAN BE 1 OR 2 MAN OPERATION			
16		(717)	.03
	* 1 MAN OPERATION			
17	(CLEAN) PAINT POT FOR PAINTING	(718)	.03
	★ 1 MAN OPERATION			
18		(720)	.03
10	* 1 MAN OPERATION	·		
10	REMOVE TAPE ON SECTION	(721)	.18
• /	* 1 MAN OPERATION	•		
20		(736)	.03
	* REMOVE COVERALLS AT END OF BLASTING	•		,,,
	A MENGAE COAFTUREED IN FUE OF SENDIATIO			

STANDARD TIME CALCULATION

M O S T OPERATION TIME CALCULATION

STEP		SA	FREQ	INTERNAL TMU	EXTERNAL TMU	LOC \$
i		0.00	0.03		121.	770
, 2		0.00	0.45		288.	691
3		0.00	0.45		570.	692
4		0.00	0.18		346.	
5		0.00	0.07		104.	739
6	MACHINE OPERATION	0.00			18000.	
7		0.00	0.18		1173.	713
8		0.00	0.18		130%.	
9		0.00	0.45		3128.	
10		0.00	0.45		8467.	727
11	•	0.00	0.45		1917.	719
12	MACHINE OPERATION	0.00	1.00		15600.	
13		0.00	0.96		259.	732
14		0.00	0.75		259.	732
15		0.00	0.48		86.	734
16	•	0.00	0.03		50.	717
17		0.00	0.03		128.	
18		0.00			121.	720
19	•	0.00	0.18		32.	721
20		0.00	0.03		41.	736
- M	ANUAL TIME(TMU)			0.	153376.	•
Ĥ	CTUAL PROCESS TIME(TMU)			0.	207800.	
F	ACTORED PROCESS TIME(TMU)			0.		
T	OTAL INTERNAL TIME(TMU)			0.		

TITLE SHEET USED IN SETTING STANDARD: 0

STANDARD TIME CALCULATION

N G S T OPERATION TIME CALCULATION

Engineered Operation Time Calculation

Tupe of Work		mental ime	Perce Allowa		Allowan Time		Standard Time
EXTERNAL MANUAL		0.184			0.000		0.184
ASSIGNED INTERNAL	(0.000)	()	•	0.000)	(0.000)
PROCESS TIME		0.336			0.000		0.336
STANDARD(HRS./CYCLE)	0.520			0.0	00	0.520
PIECES FER CYCLE		1					
STANDARD HOURS							0.5

SECTION 8 DATA SYNTHESIS AND FACK-UP

8.1 SUMMARY

686. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA

PER 1 OFG: 1 27-APR-83

MASK AREA NOT TO BE PAINTED. MULTIPLEBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED

OF BEGINS AT PAINT-AREA

TOTAL TMU 1920.

689. (SET-UP) WORK TABLE IN PAINT AREA AT PAINT SHOP PER 1 OFG: 1 18-APR-83
SETUP TABLE FOR SMALL PARTS
OF BEGINS AT PAINT-AREA

TOTAL TMU 5380.

691. (MAKE READY) OPERATOR ON GLOVE AT {PAINT-AREA
PER 1 OFG: 1 13-APR-83
GLOVES ARE WORN ONLY DURING PAINTING AND CLEANUP OF PAINTING
EQUIPMENT
OF BEGINS AT PAINT-AREA

TOTAL TMU .5408

672 . (SET-UP) OPERATOR FOR P'AINTING AT PAINT-AREA PER 1 OFG: 1 03-MAR-83

AD SUB-OF' 343 FROM ELECTRIC SHOP OP BEGINS AT F-CLEANING

TOTAL TMU 1310.

742. (MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA FER 1 OFG: 1 11-AUG-83
GET READY FOR BLASTING
OP BEGINS AT BLASTING

TOTAL TMU 2070. 745. (MAKE READY) PLACE EAR PLUGS IN EAR AT LOCKER PER 1 OFG: 1 11-AUG-83 OP BEGINS AT LOCKER-AREA TOTAL TMU 530. 761, (MAKE READY) PLACE LINES ON HEAD AT LOCKER PER (1 OFG: 1 11-AUG-E3 OP BEGINS AT LOCKER-AREA 640. TOTAL TMU 710. SETUP (ATTACHMENT) SPRAYGUN FOR PAINTING AT PAINT AREA PER 1 OFG: 1 06-JUN-83 SETUP AIR SPRAYGUN FOR PAINTING WITH CUP OF BEGINS AT PAINT-AREA X 1 MAN OPERATION TOTAL TMU 3090. 711, SETUP PAINT POT FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83 SETUP PAINTING POT FOR AIR SPRAYING OF BEGINS AT F-CLEANING X 1 MAN OPERATION

PAGE 97

TOTAL TMU

7290

713. (TR-MSPORT) PAINT ON DOLLY TO PAINT AREA PER 1 OFG: 1 03-JUN-63
PAINT STORED OUTSIDE
OP BEGINS AT P-CLEANING
* 1 MAN OPERATION

TOTAL TMU 6514.

714. MIX (MAKE READY) EPOXY PAINT IN PAIL AT PAINT MIXING PER 1 OFG: 1 C3-JUN-63
MIX TWO PART PAINT
OF BEGINS AT P-MIXING
* 1 MAN OFERATION

TOTAL THU 7270.

715. HIX (MAKE READY) PAINT IN MIX-CAN AND STRAIN INTO PAINTGUN AT PAINT AREA

FER 1 DFG: 1 03-JUN-93
MIXING PAINT FOR AIR SPRAYGUN WITH CUP
OP BEGINS AT P-CLEANING
X I MAN OF ERATION

TOTAL TMU 6950.

716. CLEAN PAINTGUN IN PAINT AREA WITH THINNER AT PAINT MIXING PER 1 0FG: 1 03-JUN-63 CLEAN AIRLESS SPRAYER OF BEGINS AT P-MIXING * 1 MAN OPERAATION

TOTAL THU . 18730.

717. REMOVE SPRAYOUN FOR CLEANING AT PAINT CLEANING PER 1 OFG: 1 03-JUN-83
CHANGE SPRAYOUN TYPE FOR HARD TO REACH AREAS OP BEGINS AT P-CLEANING
* 1 MAN OPERATION

TOTAL TMU 1680.

721. REMOVE TAPE ON SECTION AT PAINT AREA
PER 1 OFG: 1 03-JUN-83
MULTIPLY BY NO. OF TAPED AREAS
OP BEGINS AT PAINT-AREA
* 1 MAN OPERATION

TOTAL THU 150.

733. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA PER 1 OFG: 1 22-JUN-83

* MULTIPLY BY NG. OF FREQUENCIES

* CAN BE 1 OR 2 MAN OPERATION

OF BEGINS AT PAINT-AREA

TOTAL TMU 280.

734. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA
FER 1 OFG: 1 22-JUN-83
* MULTIPLY BY NO. OF FREQUENCIES
* CAN BE 1 OR 2 MAN OPERATION
OF BEGINS AT FAINT-AREA

TOTAL THU 180.

739. (CLEAN) OBJECT IN PAINT OR BLAST BOOTH AT PAINT & BLAST BUILDING PER 1 OFG: 1 06-JUL-63 BLOW OFF GRIT & DIRT WITH AIRHOSE OF BEGINS AT PAINT-AREA

TOTAL TMU 1150.

736. (REMOVE) COVEALLS ON OPERATOR AND PLACE AT LOCKER PER 1 OF6: 1 23-JUN-83

* REMOVE COVERALLS AT END OF BLASTING OP BEGINS AT LOCKER-AREA

TOTAL TMU 1350.

686. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAPE AT PAINTING AREA

FER 1 0FG: 1 27-APR-83

MASK AREA NOT TO BE PAINTED. MULTIPLEBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED OP BEGINS AT PAINT-AREA

TOTAL TMU 1920.

770. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR PAINTING AT PAINTING AREA CHECK FILTERS IN MASK AND REPLACE IF NECESSARY . FER 1 OFG: 1 12-AUG-83
* USED ONLY FOR PAINTING IN PAINTING BOOTH
* MULTIPLY BY NO. OF OPERATORS .

TOTAL THU 4020.0

- BATA BARTHEBIS ARD BACK-UP

TIS. COMBINED SUB-GR

(SET-UP) SPRAYGUN WITH CUP FOR FAINTING AT FAINT AREA THIS IS FOR PAINTING OF SMALL PARTS AND TOUCH UP ONLY PER 1 OF6: 1 08-JUN-83

1 MAN OPERATION

* AD LOC.NO. 713 PRO RATED PER PART

* AD LOC.NO. 714 PRO RATED PER PART

TOTAL TMU 8670.0

727. COMBINED SUB-OF

(SET-UP) PAINT POT FOR PAINTING AT PAINT AREA
THIS INCLUDES CLEANING AND FILLING WITH PAINT
PER 1 OFG: 1 CS-JUN-83
* 1 MAN OPERATION

TOTAL TMU 18820.0

718. (CLEAN) PAINT POT FOR PAINTING AT PAINT AREA PER 1 DFG: 1 03-JUN-83 OF DEGINS AT F-CLEANING # 1 MAN OPERATION

TOTAL TMU 4270.

732. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA PER 1 OFG: 1 22-JUN-83
* MULTIPLY BY NO. OF FREQUENCIES

* * CAN BE 1 OR 2 MAN OFERATION

OF BEGINS AT PAINT-AREA

TOTAL TMU 270.

720. (CLEAN) SPRAYGUN FOR PAINTING AT PAINT AREA FER 1 OFG: 1 03-JUN-83
OP BEGINS AT F-CLEANING
* 1 MAN OPERATION

TOTAL THU 4030.

687. (MOVE) FARTS-BOX FOR PAINTING TO PAINT-AREA
PER 1 GFG: 1 18-APR-83
MULTIPLY BY NO OF BOXES, CONTAINERS, OR SEPERATE PIECES
OP BEGINS AT PAINT-AREA

TOTAL TMU 680.

712. FILL (FAINT) GUN WITH FAINT FOR PAINTING AT PAINT SHOP PER 1 OFG: 1 03-JUN-83
FOR FILLING FAINT CUP AND ATTACH TO SPRAY GUN OP BEGINS AT P-CLEANING
* 1 MAN GPERATION

- TOTAL THU 1570.

719. (OPEN+CLOSE) PAINT POT FOR FILLING AND CLEANING AT PAINT AREA PER 1 OFG: 1 03-JUN-93
AD TO CLEAN OR FILLING PAINT POT SUB-OP
OP BEGINS AT P-CLEANING
* 1 MAN OPERATION

TOTAL THU 4260.

8.2 SYNTHESIS AND ANALYSIS

686·	TAPE	(HAKE	READY)	SECTION	FOR	PAINTING	WITH	MASKING	TAPE	ĤΤ	PHINTING	
		LRFA										

PER 1 0FG: 1 27-APR-53

MASK AREA NOT TO BE PAINTED. MULTIPL(BY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED

OP BEGINS AT PAINT-AREA

1	MOVE TAPE FROM TABLE TO OP		
	A32 B0 G1 A32 B0 F1 A0	1.00	åá0.
2	GET+MANIPULATE TAPE FROM OP TO OP		
	A1 BO G3 M10 XO IO A1	1.00	150.
3	POSITION TAPE FROM OF TO SECTION		
	A1 B0 G1 A1 B0 P6 A0	1.00	70.
4	TURN WALK 3 STEPS TAPE AT SECTION AND ALIGN F 3		
	A6 B0 B1 M3 X0 I10 A0	3.00	600.
5	PRESS WALK 3 STEPS TAPE AT SECTION F 3		
	A6 B0 G1 M3 X0 I0 A0	3.00	300.
ó	MANIPULATE TAPE AT SECTION	4 00	430
	A1 B0 G1 M10 X0 I0 A0	1.00	120.

TOTAL TMU 1920.

689. (SET-UP) WORK TABLE IN PAINT AREA AT PAINT SHOP PER 1 OFG: 1 18-APR-83 SETUP TABLE FOR SMALL PARTS

OP BEGINS AT PAINT-AREA

1 MOVE WOODEN-BUCK FROM BOOTH-6 TO PAINT-AREA F 3		
A32 B0 G1 A32 B0 F1 A0	3.00	1980.
2 PLACE 2X4-BOARD FROM BOOTH-6 TO PAINT-AREA F 3		
A32 B0 G1 A32 B0 F3 A0	3.00	2040.
3 PLACE 4'X8'-PANEL FROM TABLE TO PAINT-AREA F 2		
A32 RO G1 A32 RO P3 A0	2,00	1360.

TOTAL THU 5380.

ó71.	(MAKE READY) OPERATOR		GLOV.	E AT	₹₽Ĥ	-TKI	AREA			
	PER 1 0FG: 1 13-APR-8	_		F. 4 T	\1 ~ ~ \1:	^ 411	r. Al	E43996 /		
	GLOVES ARE WORN ONL' EQUIPMENT	וטמו	V T 14D	LHI	14 1 T 141	ואוא ט	ני ניב	EHKUF (אר באדוגוזאס	•
	OP BEGINS AT PAINT-AR	EA								
	1 WALK TO P-CLEANING	470								
	2 REMOVE GLOVE FROM	A32			AO O OD			ÄÜ	1.00	320.
	2 KLIDAL OFDAE I KOII				A1			A0	2,00	80.
	3 MANIPULATE GLOVE A				•••				_,,,	000
		A1	BO	G1	M10	ΧO	IO	A0	2.00	240.
							-			
								TOTAL	THII	ó40.
										0.00
692.	(SET-UP) OPERATOR FOR	PAI	HTIN	G AT	PAI	in-TV	REA			
	PER 1 OFG: 1 03-MAR-8:	_			_					
	AD SUB-OF 343 FROM I OP BEGINS AT P-CLEANIN		TRIC	SHO	9					
	OF DEGINS HI F-CLEHNIN	, U								
	1 POSITION MASK FROM	TABL	_E T(OP						
		A54	B0	61	A54	60	۴ó	A0	1.00	1150.
	2 OPERATE MASK AT OP									
		A1	B0	G1	Mó	ΧO	IO	ΑÛ	2.00	160.
								TOTAL	THU	1310.

741. (MARE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA PER 1 OF6: 1 11-AGG-83 GET READY FOR BLASTING OP BEGINS AT BLASTING

	1	OPEN	LOCK	ER AT	LOCKER-			\/ -	¥5	••	4.0	4 00	\
												1.00	isiv.
	2	GET+	PLACE	WITH	BEND CO	IVERA	LLS	FROM	i Loc	KER	TO OF		
					A1	B6	G3	A1	BÔ	F3	A0	1.00	140.
	7	uni n	THART	DIN ATE	COVERA								-
	3	HOLL	LIIMIKT	LOTUL			60					2.00	200.
									, VO	10	HU	2.00	-50·
	4	FULL	COVE	RALLS	AT OF A								
					A1	B0	G1	M1	ΧO	Ιó	ĤΟ	1.00	90.
	Ξ,	מ ומע	LHANT	if cou	FRALLS	AT E	IP AN	n Al	1.11157	7 ()	אם דעי	ARMS) F 2	
	9	11055	IIINIXD	LL COV								2.00	
							60	110	۸V	10	пV	2.00	2401
	6	GET+I	PULL	ZIFFER	AT OF								
					A1	F0	63	Χī	ΧÛ	10	ĤÛ	1.00	30.
											TOTA	L TMU	2070.
											1016	L 1110	20/01
745.	(fi	4KE RI	EADY)	FLACE	: EAR PL	.003	IN E	ĤŔ É	iī Li	CKE	,		
	FER	R 1 OF	6: 1	11-AU	6-63								
					R-AREA								
	O,	DEOI:	NO BI	LUUILL									
	1	FLACE	E EAR	PLU6S									
					A1	B0	61	A1	B0	F3	A0	1.00	áÛ∙
	?	OPEN	ROX	AT LOC	KER								
	_					20	G1	жZ	YΛ	TΛ	ΑO	1.00	50.
	_								۸V	IV	пv	1,00	30.
	3	GEIT	WANTE	ULAIL	EARFLU								
					A1	BO	G3	M10	X0	ΙÛ	A0	2.00	280.
	4	HOLD-	l PGSI	TION E	ARPLUGS	FRO	36 אנ	TO	OP F	7 2			
											40	- 2.00	140.
					nv	1.0	00	114	1.0		110	_,,,,	1101
											TOTA	L TMU	530.

741. (MAKE READY) PLACE LINER ON HEAD AT LOCKER PER 1 OF6: 1 11-AUG-83 OF BEGINS AT LOCKER-AREA

00 110.
00 640.
00 70.
,,,,
640.
33 4550
00 1550.
00 1120.
00 1120.
00 70.
70.
00 350.
55 5501
3070.

711. SETUP PAINT FOT FOR PAINTING AT FAINT AREA FER 1 OF9: 1 03-JUN-83 SETUP PAINTING FOT FOR AIR SPRAYING OF BEGINS AT P-CLEAKING * 1 MAN OPERATION

1 POSITION CRESENTWRENCH TO				
A1 B0	G1 A1 R0	Pó A0	1.00	70·
2 HOLD+LOOSEN 4 WINGNUTS AT CRESENTWRENCH AND ASIDE	P-CLEANING 4	ARM-STR	OKES USING	
AO BO GO AO BO (P3 A1	L24)A1 B0	P1 A0	(4) 1.00	1140.
3 LOOSEN 4 WINGHUTS AT F-CL	EANING 8 WRIS	T-TURN US	SING HAND	
A1 B0 G1 A0 B0 (F1 A1				740.
4 GET+MANIPULATE SCREEN AT				
	G3 M10 X0	IO AO	1.00	140.
5 HOLD+PLACE SCREEN TO PAIN	-			
08 0A		P3 A0	1.00	40.
6 GET+HANDLE PAINTCAN AT PA				
A1 BO		3I0 A0	1.00	1830.
7 HOLD+PLACE PAINTCAN TO P-			4.44	•
03 0A		P3 40	1.00	40.
8 PLACE SCREEN TO SCREENTAN			2,00	
	 61 A1 B0	P3 40	1.00	á0.
9 OPEN+SHUT COVER AT PAINT-		. 0	2000	
	G1 M6 X0	TO 40	1.00	80.
10 FASTEN 4 WINGNUTS AT P-C				
A1 B0 G1 A0 B0 (P1 A1				740.
11 FASTEN 4 WINGHUTS AT P-C				
AND ASIDE	CEMITING O ANI	JINONES	COTIO CHECE	(WI/CI/OI
A1 B0 G1 A0 B0 (P3 A1	F72 161 R0	P1 A0	(4) 1.00	1480.
12 POSITION AIRHOSE FROM BO				
12 PUSTITUR HIRMUSE FROM BO A42 BO		P6 A0	1.00	910.
H42 DV	OI HAS DO	ro NV	1.00	710.

TOTAL THU 7290.

713. (TRANSPORT) PAINT ON DOLLY TO PAINT AREA
PER 1 CFG: 1 03-JUN-53
PAINT STORED OUTSIDE
OF BEGINS AT P-CLEANING
* 1 MAN OPERATION

1 GET+MOVE DOLLY THROUGH DOOR TO PAINT-STORAGE THROUGH DOOR A42 B16 G3 A76 B16 P1 A0 1.00 1740. 2 WAIT 2 M (LOOK FOR PAINT) 1.00 3334. 3 GET+POSITION PAINTCAN FROM PAINT-STORAGE TO DOLLY A1 B0 G3 A1 B0 P6 A0 1.00 110. 4 GET+MOVE DOLLY FAINTCAN FROM PAINT-STORAGE THROUGH DOOR TO P-MIXING THROUGH DOOR A1 B16 G3 A76 B16 F1 A0 1.00 1330.

TOTAL TMU 6514.

714. MIX (MAKE READY) EPOXY PAINT IN PAIL AT PAINT MIXING FER 1 OFG: 1 03-JUN-83 MIX TWO PART PAINT OF BEGINS AT P-MIXING * 1 MAN OPERATION

1 LOOSEN PAINTCOVER 8 WRIST-STROKES USING SCREWDRIVER	AND ASIDE
A1 B0 G1 A42 B0 P3 L24 A1 B0 P1 A0	1.00 730.
2 PLACE AIRMIXER WALK 5 STEPS TO THINNERTANK F 3	
A10 B0 G1 A1 B0 F3 A0	3.00 450.
3 HOLD+GFERATE AIRMIXER AT THINNERTANK PT 5 S F 3	
AO BO GO M6 X16 IO AO	3.00 660.
4 HOLD+OPERATE AIRMIXER AT OP PT 5 S F 3	
AO BO GO M6 X16 IO AO	3.00 660.
5 HOLD+MOVE AIRMIXER TO P-MIXING (PUT IN PAINT) F 3	
AO BO GO A1 BO F1 AO	3.00 60.
6 HOLD+OPERATE AIRMIXER AT F-MIXING FT 20 S (MIX PAI	
AO BO GO M6 X54 IO AO	3.00 1800.
7 HOLD+PLACE AIRMIXER TO THINNERTANK F 3	-
AO BO GO A1 BO P3 AO	3.00 120.
8 HOLD+OPERATE AIRMIXER AT THINNERTANK PT 5 S F 3	
AO BO GO M6 X16 IO AO	3.00 . 660.
9 HOLD+PLACE AIRMIXER TO P-MIXING F 3	7 00 100
AO BO GO A1 BO F3 AO	3.00 120.
10 GRIP PAINTCAN AT P-MIXING USING PLIERS AND HOLD	4 00 70
A1 B0 G1 A1 B0 F3 C1 A0 B0 F0 A0	1.00 70.
11 MOVE PAINTCAN-1 TO P-MIXING SIMO	4 00 0
<a42b0 a0="" a42="" b0="" g1="" p1=""></a42b0>	1.00 0.

12	HOLD4REMOVE PAINTCAN-1 TO OF		
	AO BO GO A1 BO P1 AO	1.00	20.
13	HOLD+MANEUVER PANITCAN-1 AT MIXCAN AND ASIDE P	T 10 S	
	AO BO GO M10 X32 IO AO	1.00	420.
14	MOVE FAINTCAN-2 TO P-MIXING SIMO		
	<a42b0 61="" a0="" a42="" b0="" p1=""></a42b0>		0.
15	GET+MANEUVER PAINTCAN-2 AT MIXCAN AND ASIDE PT		
	A1 B0. G3 M10 X32 IO A0	1.00	460.
16	GET+POSITION PAINTCAN-1 TO PAINTCAN-2		
	A1 B0 G3 A1 B0 P6 A0	1.00	110.
17	GET+POSITION FAINTCOVER TO FAINTCAN-2		
	A42 B0 G3 A42 B0 P6 A0	1.00	730.

TOTAL THU 7270.

715. MIX (MAKE READY) PAINT IN MIX-CAN AND STRAIN INTO PAINTGUN AT PAINT AREA

PER 1 OFG: 1 03-JUN-83
MIXING PAINT FOR AIR SPRAYGUN WITH CUP
OP BEGINS AT P-CLEANING
* 1 MAN OPERATION

. 1 LOGGEN PAINTCOVER 3 WRIST-STROKES USING SCREWDRIVER AND ASIDE A1 B0 61 A1 B0 F3 L24 A1 B0 F1 A0 1.00 320. 2 OPERATE STRICK AT PAINTCAN-1 AND ASIDE STICK PT 60 S A1 B0 G1 H6 X173I0 A0 1.00 1810. 3 GRIP PAINTCAN-1 USING PLIERS AND HOLD 70. A1 R0 G1 A1 B0 P3 C1 A0 R0 P0 A0 1.00 4 HOLD+REMOVE PAINTCAN-1 TO OF 20. 1.00 AO BO GO A1 BO P1 AO 5 HOLD+MANEUVER P"RAINTCAN-1 AT MIXCAN AND ASIDE PT 10 S 1.00 AO BO GO M10 X32 IO AO 420. 6 OPERATE STICK AT FAINTCAN-2 AND ASIDE STICK FT 60 S A1 B0 G1 M6 X173I0 A0 1.00 1610. 7 GET+MANEUVER PAINTCAN-2 AT MIXCAN AND ASIDE PT 10 S A1 B0 G3 M10 X32 I0 A0 1.00 460. 8 GET+FOSITION FAINTCAN-1 TO FAINTCAN-2 A1 B0 G3 A1 B0 P6 A0 110. 1.00 9 GET+POSITION PAINTCOVER TO PAINTCAN-2 A1 B0 G3 A1 B0 F6 A0 1.00 . 110. 10 OPERATE STICK AT MIXCAN FT 60 S A1 B0 G1 M6 X173I0 A0 1.00 1810. 11 HOLD+TOSS STICK AO BO GO A1 BO FO AO 1.00 10.

TOTAL THU 8550.

716. CLEAN PAINTGUN IN PAINT AREA WITH THINNER AT PAINT MIXING PER 1 OFG: 1 03-JUN-83
CLEAN AIRLESS SPRAYER
OP BEGINS AT P-MIXING
* 1 MAN OPERAATION

1 TURN WALK 3 STEPS WITH BEND LEVER AT F-MIXING (AIR OFF) F 3
A6 B6 G1 H3 X0 · IO A0 3.00 480.
2 LOOSEN SPRAY-TIP 8 WRIST-TURNS USING CRESENTWRENCH AND ASIDE
A1 B0 G1 A1 B0 F3 L16 A1 B0 F1 A0 1.00 240.
3 WALK 3 STEPS WITH BEND RAG TO THINNERPAIL A1 B0 G0 A0 B0 F0 A0 1.00 10.
4 WIPE FILL-TURE 5 SG.FT. USING RAG AND ASIDE A1 B0 G1 A1 B0 F1 S32 A1 B0 F1 A0 1.00 380.
5 PLACE WITH BEND FILL-TUBE TO THINNERPAIL
A1 B6 G1 A1 B0 P3 A0 1.00 120.
6 TURN WALK 3 STEPS WITH BEND LEVER AT P-MIXING (AIR ON) F 2
A6 B6 G1 M3 X0 IO A0 7 2.00 320.
7 OPERATE WALK S STEPS WITH BEND SPRAYOUN AT P-MIXING
A10 B6 G1 M6 X0 IO A0 1.00 230.
S GET+GRIP SPRAY-TIP USING PLIERS AND ASIDE
A1 B0 S3 A1 B0 P3 C1 A1 B0 P1 A0 1.00 110.
7 LODSEN SPRAY-TIP 10 WRIST-TURNS USING FINGERS AND HOLD
A1 B0 G1 A1 B0 P1 L24 A0 B0 P0 A0 1.00 280.
10 LOOSEN SCREW AT SPRAY-TIP 10 WRIST-TURNS USING SCREWDRIVER AND
ASIDE
A1 B0 G1 A1 B0 P3 L24 A1 B0 P1 A0 1.00 320.
11 MANIPULATE WALK 3 STEPS WITH BEND SPRAY-TIP AT THINNERPAIL PT 120 S
A6 B6 G1 M10 X330I0 A0 1.00 3530.
12 FASTEN SCREW AT SPRAY-TIP 12 WRIST-TURNS USING SCREWDRIVER AND
ASIDE
A1 B0 G1 A1 B0 P3 F24 A1 B0 P1 A0 1.00 320.
13 PLACE SPRAY-TIP TO OF AND HOLD
A1 B0 - G1 A1 B0 P3 A0 1.00 60.
14 OPERATE SPRAYOUN AT P-MIXING (RELEASE PRESURE) PT 10 S
A1 B0 G1 M6 X32 I0 A0 1.00 400.
15 LOOSEN WALK 5 STEPS WITH BEND FILTER-CAP 20 WRIST-TURNS USING
FINGERS FF 2 (6 7 8) F 2
A10 B6 G1 A1 B0 (P1 L42)A0 B0 F0 A0 (2) 2.00 . 2080.
16 REMOVE FILTER FROM FILTER-CAP TO OP A1 B0 G1 A1 B0 P1 A0 1.00 40.
17 FASTEN WITH BEND FILTER-CAP 20 WRIST-TURNS USING FINGERS FF 2 (6 7
8) F 2
A1 B6 G1 A1 B0 (P1 F42)A0 B0 F0 A0 (2) 2.00 1900. 18 MANIPULATE WALK 3 STEPS AIRHOSE AT P-MIXING
TO DHATLOFHIC AMPLY 2 SICLS HINDOR HI LIMITYTAR

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										4 03		
										1.00		
19 0	FERATE WIT	H BEN	3 SPR	AYGU	H AT	F-X	IXIn	iG (CLEAN	FILTER) F	T 70 S	
			A1	Ĝá	61	Ήó	X24	5I0	ĤÛ	1.00	2370.	
20 R	EMOVE INNE	R-FILT	TER T	O OP	•							
									ΑO		40.	
21 0 S		'H BENI	O SFR	AYGU	TA M	F-M	(IXI)	(G (CLEAR	INNER FILT	ER) PT	90
J	•		Δ1	BA	61	MA	Y24	STA	A0	1.00	2590.	
22 5	LACE INNER	_ET! T!				110	A=-	010		2100	20,01	
22 F	CHCE TRIVER	(-LIE11	-		61	Δ1	PΛ	27	Δ۵	1.00	<u></u> 60.	
07.5	N AGE ETL TE	n Enci					_	FJ	NV	1,00	00+	
23 F	LACE FILTE	וטאיז אנ								4 44		
			A1	B0	61	A1	FO	P3	ĤΟ	1.00	ó٠٠	
24 F	POSITION WA	LK 3	STEPS	AIR	CHOSE	FRO	im P-	-MIX	ING TO	OF F 16		
			Aó	BO	G1	A1	BO	Fó	ńΰ	16.00	2240.	
25 H	OLD+PLACE	AIRHO:	BE FR	מ אס:	P TO	SPR	AYGL	iN A	T P-MI	XING		
			A0	60	GO	A1	30	F3	ΑO	1.00	40.	
26.6	LACE WITH	BEND S										
									ΑÛ	1.00	120.	

TOTAL THU 18730.

717. REMOVE SPRAYOUN FOR CLEANING AT PAINT CLEANING PER 1 OFG: 1 03-JUN-83
CHANGE SPRAYOUN TYPE FOR HARD TO REACH AREAS
OP BEGINS AT P-CLEANING
* 1 MAN OPERATION

1	LOOSEN	TUK	2	WRIST-	STR	OKES	USIN	G	CRESEN	TWF	ENCH	AND	ASIDE R	- 2	
	A1	BO	G1	A1	80	F3	L6	A1	BO	î1	A0		2.00		280.
2	LOOSEN	TUN	10	WRIST	-TU	RNS	USING	F	INGERS	F	2				
	A1	BO	61	A1	BO	P1	L24	A0	BO	F٥	ΑO		2.00		560.
3	FASTEN	TUN	10	WRIST	-TU	RNS	USING	F	INGERS	F	2				
	A1	BO	G1	A1	BG	P1	F24	A٥	F0	Ρô	AG		2.00		560.
4	FASTEN	TUN	2	WRIST-	STR	OKES	MISU	iG	CRESEN	Twi	RENCH	űИн	ASIDE I	- 3	
	A1	BO	G 1	A1	B0	P3	F6	A1	BO	P1	ΑÛ		2.00		260.

TOTAL THU 1680.

721. REMOVE TAPE ON SECTION AT PAINT AREA PER 1 OFG: 1 03-JUN-83 MULTIPLY BY NO. OF TAPED AREAS OP BEGINS AT PAINT-AREA * 1 MAN OPERATION		
1 GET+REMOVE TAPE FROM SECTION TO OP A1 B0 G3 A1 B0 P1 2 HOLD+MANIPULATE TAPE FROM OP TO OP	A0 1.	00 40.
AO BO GO M10 XO IO 3 HOLD+TOSS TAPE FROM OP TO PAINT-AREA	A1 1.	00 110.
AO BO GO A1 BO FO	A0 1.	00 10.
	TOTAL THU	160.
733. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING A PER 1 OFG: 1 22-JUN-83 * MULTIPLY BY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OF BEGINS AT PAINT-AREA	REA	
1 GET+MOVE WITH KNEEL SPRAYGUN FROM PAINT-AR A1 B16 G3 A1 B0 P1		AREA 00 220.
2 HOLD+OPERATE SPRAYGUN AT PAINT-AREA AO BO GO M6 XO IO	A0 1.	00 60.
	TOTAL THU	280•
734. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING A FER 1 OFG: 1 22-JUN-83 * MULTIPLY BY NO. OF FREQUENCIES * CAN BE 1 OR 2 MAN OPERATION OP BEGINS AT PAINT-AREA	REA	
1 GET+MOVE WITH BEND SPRAYGUN FROM FAINT-ARE	A TO PAINT-A	REA
A1 B6 G3 A1 B0 P1		REA 00 120.
	A0 1.	

739. (CLEAN) OBJECT IN FAINT OR BLAST BOOTH AT FAIR FER 1 OFG: 1 06-JUL-83 BLOW OFF BRIT & BIRT WITH AIRHOSE OF BEGINS AT PAINT-AREA	VT & BLAST BUILDING
1 GET+MOVE AIRHOSE FROM P-CLEANING TO PAINT-	AREA
A32 BO G3 A32 BO F1 2 TURN LEVER AT PAINT-AREA (ON)	A0 1.00 480.
A1 B0 G1 M3 X0 I0 3 TURN LEVER AT PAINT-AREA (OFF)	A0 1.00 50.
A1 B0 G1 M3 X0 I0 4 GET+MOVE AIRHOSE FROM PAINT-AREA TO P-CLEA	
A1 B0 G3 A32 B0 F1	
•	TOTAL TMU 1150.
736. (REMOVE) COVEALLS ON OPERATOR AND PLACE AT LO PER 1 OFG: 1 23-JUN-83 * REMOVE COVERALLS AT END OF BLASTING OP BEGINS AT LOCKER-AREA	CKER
1 PULL ZIFPER AT OF A1 B0 G1 M1 X0 IO	A0 1.00 30.
2 GET+MANIPULATE TAPE AT OP (TAKE OFF TAPE) F 2
A1 B0 G3 M10 X0 I0 3 GET+MANEUVER COVERALLS AT OP (TAKE ARMS O	
A1 B0 G3 M10 X0 I0	
4 GET+PUSH WITH BEND COVERALLS AT OF	A0 1.00 110.
A1 B6 G3 M1 X0 IO 5 GET+MANIPULATE COVERALLS AT GP AND ADJUST	(TAKE LEGS OUT) F 2
A1 B0 G3 M10 X0 I6	
6 PICKUP COVERALLS TO OF	
A1 B0 G1 A1 B0 F0	
7 HOLD+MANIPULATE COVERALLS AT OP (SHAKE OU AO BO GO M10 XO IO	
8 OPEN+SHUT LOCKER AT LOCKER-AREA	HO 1.00 100.
. A1 B0 G1 M6 X0 I0	A0 1.00 50.
9 HOLD+FLACE COVERALLS FROM OF TO LOCKER AO BO GO A1 BO F3	A0 1.00 40.
	TOTAL THU 1350.

486. TAPE (MAKE READY) SECTION FOR PAINTING WITH MASKING TAFE AT FAINTING AREA

PER 1 0F8: 1 27-APR-83

MASK AREA NOT TO BE PAINTED. MULTIPLEBY THE NO OF EDGES, BULKHEAD LINES, STIFFENER LINES, STIFFENERS, ETC.

* AVERAGE 4' LENGTH OF TAPE APPLIED

OF BEGINS AT PAINT-AREA

1 MOVE TAPE FROM TABLE TO OP		
A32 B0 G1 A32 B0 P1 A0	1.00	۵۵۰،
2 GET+MANIFULATE TAPE FROM OP TO OP		
A1 B0 G3 M10 X0 I0 A1	1.00	150.
3 FOSITION TAPE FROM OP TO SECTION		
A1 B0 G1 A1 B0 F6 A0	1.00	7û.
4 TURN WALK 3 STEPS TAPE AT SECTION AND ALIGN F 3		
A6 B0 G1 M3 X0 I10 A0	3.00	600·
5 PRESS WALK 3 STEPS TAPE AT SECTION F 3		
A6 B0 G1 -M3 X0 I0 A0	3.00	300.
6 MANIPULATE TAPE AT SECTION		
A1 B0 G1 M10 X0 I0 A0	1.00	120.

TOTAL TMU 1920.

776. COMBINED SUB-OF

(MAKE READY) OPERATOR FOR PAINTING AT PAINTING AREA CHECK FILTERS IN MASK AND REPLACE IF NECESSARY PER 1 OFG: 1 12-AUG-83 ** USED ONLY FOR PAINTING IN PAINTING BOOTH

* MULTIPLY BY NO. OF OPERATORS / TOTAL THU 4020.0

	Combined sub-operation elements	Frea.	TMU
742.	(MAKE READY) PUT COVERALLS ON OPERATOR AT LOCKER-AREA	•	
691.	(MAKE READY) OPERATOR ON GLOVE AT CPAINT-AREA	1.00	2070.0
692.	(SET-UP) OPERATOR FOR PAINTING AT PAINT-AREA	1.00	640.0
ı		1.00	1310.0
	Total TMU		4020.0

724. COMBINED SUB-OF

(SET-UP) SPRAYGUN WITH CUP FOR PAINTING AT PAINT AREA THIS IS FOR PAINTING OF SMALL PARTS AND TOUCH UP OWLY PER 1 OFG: 1 08-JUN-83 * 1 MAN OPERATION * AD LOC.NO. 713 PRO RATED PER PART

* AD LOC.NO. 714 PRO RATED PER PART -

, TOTAL TMU

8690.0

Combined sub-operation elements	Frea.	าหบ
710. SETUP (ATTACHMENT) SPRAYGUN FOR PAINTING AT PAINT ARE	A	
712. FILL (PAINT) GUN WITH PAINT FOR PAINTING AT PAINT SHO	1.00 F	3090.0
720. (CLEAN) SPRAYGUN FOR PAINTING AT PAINT AREA	1.00	1570.0
	1.00	4030.0
Total TMU		8690.0

727. COMBINED SUB-OF

(SET-UP) PAINT POT FOR PAINTING AT PAINT AREA
THIS INCLUDES CLEANING AND FILLING WITH PAINT
FER 1 OFG: 1 O8-JUN-83
* 1 MAN OPERATION

TOTAL TMU 18820.0

	Combined sub-operation elements	. Freg.	UMT	
711.	SETUP PAINT POT FOR PAINTING AT PAINT AREA			
		1.00		
	Total TMU		7290.0	

718. (CLEAN) PAINT FOT FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83 OF BEGINS AT F-CLEANING

* 1 MAN OPERATION

1 TURN LEVER AT PAINT-POT (AIR OFF) F 2		
A1 B0 G1 M3 X0 I0 A0	2.00	100.
2 TURN LEVER AT PAINT-POT (PAINT OFF) F 2		
A1 B0 G1 M3 X0 I0 A0	2.00	100.
3 PLACE PAINT-COVER FROM P-CLEANING TO THINNER		
A1 B0 G1 A1 B0 F3 A0	1.00	áÛ٠
4 PLACE RAG TO THINNER		
A1 B0 G1 A1 B0 P3 A0	1.00	óû∙
5 WIFE PAINT-POT 3 SQ.FT. USING RAG AND ASIDE		
A1 B0 G1 A1 B0 P1 S32 A1 B0 P1 A0	1.00	380.
6 OPERATE THINNER AT PAINT-PGT (POUR THINNER)		
A1 B0 G1 M6 X0 I0 A0	1.00	30 ∙
7 PLACE PAINTCOVER TO PAINT-POT		
A1 B0 G1 A1 B0 P3 A0	1.00	άÛ•
8 TURN LEVER AT PAINT-POT (AIR ON)		
A1 B0 G1 M3 X0 I0 A0	1.00	50.
9 OPERATE SPRAYOUN AT PAINT-POT PT 120 S		
A1 B0 G1 M6 X330I0 A0	1.00	3380.

TOTAL THU 4270.

732. (PAINT) (OBJECT) IN PAINT BOOTH AT PAINTING AREA PER 1 OFG: 1 22-JUN-83

- * HULTIPLY BY NO. OF FREQUENCIES
- * CAN BE 1 OR 2 MAN OPERATION
- OF BEGINS AT FAINT-AREA

1 GET+MOVE WITH 10 STEPS	S SPF	RAYGU	N FR	0M	PAINT	-AREA	TO PAINT-ARE	:A
A1	6 BO	. G3	A1	BO	P1	AG	1.00	210.
2 HOLD+OPERATE SPRAYGUN	AT F	THIA	-ARE	A				
AO	B0	G٥	λó	X0	10	A0	1.00	áû.

TOTAL TMU 270.

720. (CLEAN) SPRAYGUN FOR PAINTING AT PAINT AREA PER 1 OFG: 1 03-JUN-83 OF BEGINS AT P-CLEANING * 1 MAN OPERATION

1	L LOOSEN SPRAY-TIP 20 WRIST-TURNS USING FINGERS	
	A1 B0 G1 A1 B0 P1 L42 A0 B0 P0 A0 1.00 46	0.
2	REMOVE SPRAY-TIP TO OF	
		0.
3	3 PLACE SPRAY-TIP SPRAYGUN TO THINNER	
	112 20 01 112 20 10 110	O.
4	4 WIPE SPRAYGUN AT P-CLEANING 1 SQ.FT. USING RAG AND ASIDE	_
	A1 B0 G1 A1 B0 F1 S10 A1 B0 F1 A0 1.00 15	ů.
5	5 WIPE SPRAY-TIP 1 SQ.FT. USING RAG AND ASIDE	_
	A1 B0 G1 A1 B0 P1 S10 A1 B0 P1 A0 1.00 16	Ů.
Ó	6 WIPE AIRHOSE AT P-CLEANING WALK 3 STEPS 1 SQ.FT. USING RAG AND	ASIDE
	F 15	
	A1 B0 G1 A6 B0 P1 S10 A1 B0 P1 A0 15.00 315	Ü.

TOTAL THU 4030.

687. (MOVE) PARTS-BOX FOR PAINTING TO PAINT-AREA
PER 1 OFG: 1 18-APR-63
MULTIPLY BY NO OF BOXES, CONTAINERS, OR SEPERATE PIECES
OP BEGINS AT PAINT-AREA

1 GET+MOVE FARTS-BOX FROM TABLE TO PAINT-AREA A32 B0 G3 A32 B0 F1 A0 1.00 680.

TOTAL THU 660.

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712. FILL (PAINT) GUN WITH PAINT FOR PAINTING AT PAINT SHOP PER 1 OFG: 1 03-JUW-83 -... FOR FILLING PAINT GUP AND ATTACH TO SPRAY GUN

OF BESINS AT P-CLEANING

* 1 MAN OPERATION

1 OPEN PAINTOUS AT P-SLEANING		
A1 B0 G1 M3 X0 I0 A0	1.00	50.
2 GET+MANIPULATE SCREEN AT SCREENTANK (CLEAN SCREEN	(9)	
A1 B0 G3 M10 X0 I0 A0	1.00	140.
3 MOVE SPRAYGUN TO F-CLEANING SIMO		
<a54b0 a0="" a54="" b0="" f1="" g1=""></a54b0>	1.00	٥.
4 HOLD+POSITION SCREEN TO SPRAYGUN		
AO BO GO A1 BO FÓ AO	1.00	70.
5 GETHHANDLE MIXCAN AT SPRAYGUN PT 30 S .		
A1 B0 G3 M6 X81 I0 A0	1.00	710.
6 HOLD+PLACE MIXCAN TO P-CLEANING	_	
AO BO GO A1 BO F3 AO	1.00	40.
7 PLACE SCREEN TO SCREENTANK AND ASIDE		
A1 B0 G1 A1 B0 F3 A0	1.00	50.
8 PLACE SPRAYOUN TO SPRAYOUN AND ASIDE		
A1 B0 G1 A1 B0 F3 A0	1.00	á0.
9 GETHWIPE SPRAYGUN 2 SQ.FT. USING RAG AND ASIDE		
A1 B0 03 A1 B0 P1 816 A1 B0 P1 A0	1.00	240.

TOTAL THU 1570.

APR 2 5 1992

719. (OPEN+CLOSE) PAINT POT FOR FILLING AND CLEANING AT PAINT AREA FER 1 OFS: 1 03-JUN-93
AD TO CLEAN OR FILLING PAINT POT SUB-OP
- OP BEGINS AT P-CLEANING
* 1 MAN-OPERATION

j	1	F03I1	FION	GRES	EHTWE	RENCH	i · T0	PAINT	-FG	TF	2				
	•					AĮ.	BO	G1	A1	BO	Fó	ΑO		2.00	180.
-1	2			SEN 4	WIN	דטאם:	S AT	F-CLE	I KA	NG 4	ARI	f-ST	ROKES	USING	
					ina H										
													(4)		1140.
;	3	Loosi	EN 4	WING	RUTS	AT I	P-CL	EANIN(3 6	WRIS	T-Ti	EMAL	USING	FINGERS	
į	A1	BO	G1	AQ	B0	(P1	A1	L16) A 0	03	PO	ΑÛ	(4)	1.00	740.
4	4	FAST	EN 4	WING	ETUN	AT F	P-CLI	EANINO	3 8	WRIS	;T-T	JRN3	USING	FINGERS	
í	41	BO	G1	A0	R0	(f1	A1	F16)A0	BO	F0	AO	(4)	1.00	740.
,	5	HOLD-	HFAS:	TEN 4	WIN(TUNE	AT	P-CLE	ANI	NG 6	AR	M-STI	ROKES	USING	
		CRES	SENT	VRENC	H ANI	AS)	DE.								
í	AO	BO	GO	A0	60	(F3	A1	F32)A1	Ca	F1	ΑÛ	(4)	1.00	1460.
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TOTAL TMU 4260.

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